PRINCIPLES OF
POLITICAL ECONOMY

BY

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SECOND ENGLISH EDITION

ENTIRELY RE-TRANSLATED AND ADAPTED FROM
THE LATEST FRENCH ORIGINAL

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TRANSLATOR'S PREFACE

THE fact that Professor Gide's "Principes d'Économie Politique" has gone through eight editions in the original French, and been translated into the Russian, Swedish, Polish, Dutch, Finnish, Spanish, and Bohemian languages, furnishes presumptive evidence of its usefulness. The first English translation, published in 1889, has been very widely used in England and America as a college text-book, despite numerous features of this translation which placed it at a disadvantage when compared with other text-books designed to supply practically the same need. These features have been pointed out from time to time by benevolent critics; but the continued extensive use of the book with classes in political economy led the publishers to conclude that a new edition, without the objectionable features, and adapted more closely to the needs of college classes in economics, would find an even wider acceptance than the first English translation.

The successive French editions of the work have undergone numerous and important changes,—changes not so much in the general scope and spirit of the book as in the manner of presenting certain sections of the subject. The fundamental purpose has remained precisely the same: to give the reader a plain statement of the accepted principles of economics, a summary of the unsettled problems of the science, and a clear, brief, and impartial outline of the various solutions that have been proposed.

The book as now issued, however, is not a mere translation of the eighth edition of the original, published some months ago. In some respects it is more, and in others less.

I have, in the first place, eliminated all distinctively French illustrative material which could add little or nothing to the value of the book in the hands of English and American readers. For this French material I have substituted data mainly from American sources; and in so doing I have endeavoured to quote the latest and most reliable authorities. The volume contains a vast amount of statistical and other illustrative material which, I trust, will give the book a vitality, a closeness to real industrial life, and a smack of "up-to-dateness" which ought not to be objectionable, but which is unfortunately so rare in economic text-books. I see no sound reason why political economy should be regarded—as it undoubtedly is regarded by a large number of students—as a recondite study dealing with all manner of uninteresting theoretical minutiæ. No subject is, as a matter of fact, more intensely practical. The undue emphasis on purely doctrinal matters, unaccompanied by any appeal to the facts of economic experience or history, and with apparently no regard for the problems that are now demanding a solution, cannot improve the reputation of political economy. It is to be hoped, therefore, that the present accumulation of illustrative material will counteract this tendency. Although Professor Gide himself gives an abundance of statistical and historical data, I have gone even further in this direction. In the discussion of protective tariffs I have given a history of tariff legislation in the United States; in connection with the discussion of metallic money and of paper money I have outlined the instructive monetary experiments of my own country; and in the treatment of the problems of bank organisation I have sketched the history of banking in the United States.

In the second place, I have suppressed a few notes of interest only to the French reader, and I have entirely omitted the appendix on French finance. This appendix appears to have been little used in the previous English edition, and certainly is of no more value to the English student than a sketch of German public finance. There was really no valid reason for its retention in the present edition. It would, to be sure, have been possible and perhaps even desirable from some points of view to substitute a sketch of American or English public finance. There are, however, several excellent small text-books which cover this subject much more satisfactorily than the twenty-five or thirty pages of an appendix.

In the third place, some of the sections on Distribution and on Consumption seemed hardly abreast of American investigations in these exceptionally important domains of economic science, and I have therefore taken the liberty here and there to add whole paragraphs and pages. This added matter, however, is purely expository and supplementary, and is in no wise discordant with the avowed purpose of Professor Gide's book. For he has assured me personally, and declared repeatedly, that his primary object is to give the student an idea of *all* the solutions which have been proposed for mooted problems; and certainly the work of American, English, and Austrian economists in the field of distribution is entitled to as much consideration as the exploded doctrines of the older schools.

Except for these changes, I have tried to adhere closely to the thought of the author. Wherever it has seemed necessary to choose between good English style and fidelity in rendering the thought or ati tude of the original, I have not hesitated to sacrifice the former to the latter. Some of the peculiarities of style are due to this; for the others I must bear the blame.

It would be ungrateful not to acknowledge the assistance rendered in the preparation of this book by Dr. Alvin S. Johnson, of Columbia University, who offered many suggestions with regard both to the contents and the style, and by Mr. William T. Foster, of Harvard University, for carefully reading the greater part of the proof and pointing out innumerable possibilities of improvement in English. I am also greatly indebted to Professor Gide himself for the keen and constant interest he has shown in the present translation.

C. WILLIAM A. VEDITZ.

FROM THE AUTHOR'S PREFACE TO THE EIGHTH EDITION

THE first edition of this book was published twenty years ago. During this period — *grande mortalis ævi spatium* — the progress of sociological thought has been so rapid that opinions which were then held to be revolutionary now incur the danger of being regarded as commonplace. The small school — then in its infancy — which I named the "school of solidarity," and which adopted a line of thought between "liberalism," on the one hand, and "collectivism," on the other, has grown to eminence; what was then a small, unfrequented path is now a highway traversed by the masses.

What I have endeavored to do is to give a general description, rather than an analysis, of the economic world — of the vast domain in which we live and move without knowing very well whither we are going. I have sought to arouse curiosity and interest in economic problems rather than always to furnish cut-and-dried solutions. I have tried not so much to convey absolute conviction based on scientific laws that are still imperfectly understood, as to impart a sincere and fervid desire to discover the truth. I have, moreover, tried to make political economy, which in France has long borne (without much protestation) the name of tedious literature, appear to the beginner as an attractive and captivating subject. I know from personal testimony that among the readers of various nationalities who have studied political economy in these pages, there are at least a few who have found the science interesting, who have learned to love it, and who will continue to be devoted to it.

CHARLES GIDE.

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PRINCIPLES OF POLITICAL ECONOMY

BOOK I. GENERAL NOTIONS

I. The Object of Political Economy

THE heavenly bodies, the earth that we inhabit, the elements that it contains, as well as the animals and plants that live on its surface, — in fact, all the things that constitute the material universe and all the phenomena that take place therein, — are the subjects of a distinct group of sciences known as *the physical and the natural sciences.* But in this vast world there are other subjects no less worthy of study, namely, men themselves, living in society; in fact, they could not possibly live otherwise. The relations that unite men socially form the subject of a separate group of sciences, called the *social sciences.* As there are among men many kinds of social relations, — moral, legal, economic, political, religious, and, finally, linguistic relations which serve as a vehicle for all the others, — so there are many distinct social sciences, known as ethics, law, political economy, politics, the science of religions, and the science of languages.[1]

It is true that the lines of demarcation among the social sciences, which all treat ultimately of man as a member of society, cannot be drawn so sharply as those that separate sciences having dissimilar subjects, such as geology, botany, and zoölogy. Hence the classification of social sciences will always be more or less artificial, made to facilitate study and to help overcome the limitations of our understanding rather than to indicate any natural separation of them.[1] Indeed, the frontiers of these sciences, especially of those most closely related to each other, — ethics, jurisprudence, and political economy, — will always be somewhat indefinite; some institutions, as, for example, property, inheritance, and the wage system, fall clearly within the scope of all three. This fortunate interdependence, moreover, is helpful to each of these sister sciences. We need only observe that the same subject may be studied from distinctly different points of view, and bear in mind the dissimilar standpoints of the moralist, the lawyer, and the economist. This is not difficult. To *do our duty*, to *exercise our rights*, to *satisfy our wants*, are three quite different aims of human activity; and only the last of these is the proper subject of economic science. We may say, therefore, that political economy has to do with the relations of men living in society, so far as these relations tend to satisfy the wants of life and concern the efforts made to provide for all that is generally understood by *material welfare*.[2]

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[1] We do not mention history in this list, because history has no distinct subject-matter of its own. Every social science, and even every natural science, has its history, which is the study of the same class of facts from the standpoint of their succession in time.

At present there is a tendency to divide the science into two studies, *pure political economy* and *social economics*, which differ less in their content than in the manner of approaching the subjects they both treat.

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[1] Auguste Comte considered it irrational to separate the sciences that treat of human societies. He maintained that there should be but one social science, covering all the aspects of social life, and to this science he gave the name "sociology," which has since become classical. He expressly condemned every effort to make political economy a distinct science. It is in one sense true that all social sciences partake of the unity of human nature, but in the light of good scientific methods we cannot gainsay the right to keep the above-named social sciences apart as distinct fields of study

[2] Formerly it was customary to say (and it is often said to-day) that political economy is the "science of wealth." But this definition has the disadvantage of turning attention away from the real subject of economics, which is man and his wants, and concentrating it on exterior objects which are only means for the satisfaction of human wants. This is not a mere question of words, for the erroneous point of view has exposed many economists to the justifiable reproach of reasoning as though man were made for wealth, and not wealth for man.

On the one hand, *pure political economy* (sometimes called abstract economics or simply economics) is supposed to investigate those relations that arise naturally among men living together, just as though we were studying the relations among material lifeless bodies of any kind — what Montesquieu called "the necessary relations which result from the nature of things." It does not undertake to pass judgment on these relations from either the moral or the practical standpoint, but attempts simply to explain what these relations are. In this respect it may be said to resemble any natural or exact science, since it endeavors to explain matters just as they happen to be, without questioning their desirability.

On the other hand, *social economics* is supposed to study chiefly the voluntary relations which men have established among themselves in the form of social organizations, written laws, customs, or other institutions having for their object the improvement of social conditions. It purposes to investigate and devise means by which better conditions may be attained. Hence it is more closely allied to the moral sciences.[1]

II. Whether there are Natural Laws in Political Economy

When we grant to any branch of human knowledge the name of *science*, our object is not the simple bestowal of an honorary title. We mean that the facts with which it deals are *connected by certain necessary relations which have been discovered, and which are called laws.*

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[1] The division here made must not be mistaken for that which distinguishes *theoretical* from applied or *practical* economics. Political economy always comprises a practical part which takes up the best means of utilizing the natural laws discovered by the science; *i.e.* such means as banks, railroads, monetary and commercial systems, taxes, etc. Social economics, on the other hand, since it seeks to determine *what ought to be*, *i.e.* the relations which should in justice prevail among men, always embraces a theoretical part.

In some domains the regularity of occurrences is so obvious as to attract the attention even of persons least accustomed to scientific speculation. A mere glance at the firmament is enough to show the regular nightly progress of the stars, the monthly succession of the phases of the moon, and the annual journey of the sun through the constellations. In the most remote days of history, shepherds watching their flocks and sailors steering their vessels discovered the periodicity of these movements, and thus paved the way for a true science, the oldest of all sciences, — astronomy.

The changes that take place in the constitution of inorganic matter and organic bodies are not so simple as this, and the uniformity of their coexistence and succession is not so easy to comprehend. Many centuries, therefore, had to elapse before the human mind, bewildered by the complexity of things, succeeded in laying hold of the guiding thread, in finding law and regularity in these phenomena as well, and thus in establishing the sciences of physics, chemistry, and biology. Little by little the idea of a permanent regularity of phenomena has penetrated all domains of human knowledge, even those which at first seemed destined to remain forever closed to it. Even the winds and waves, which, from time immemorial, poets have made the emblem of inconstancy and capriciousness, have been brought under the sway of universal law. The great laws which govern currents of air and of water have been discovered, and now form the basis of meteorology. Even the chances of wagers, the probable combinations of numbers in a throw of dice, have been subjected to calculation. Hazard itself may henceforward be said to have its laws.

The time was of course bound to come when the great idea of a natural order of things, after having step by step successfully invaded all other fields of knowledge, should at last penetrate the domain of social facts. The honor of having first recognized and proclaimed the existence of a "natural government" of society is due, as we shall see, to Montesquieu and the Physiocrats.

Yet there are many who hesitate to put the social sciences on a level in this respect with the physical sciences. It seems to them that there is between these two classes of sciences an insurmountable barrier, and that the latter belong to the realm of inexorable Necessity, while the former belong to the realm of Liberty. They believe that the physical sciences have to do with matters that cannot help taking place, while the social sciences are concerned with things that may or may not take place, according as we choose. In the physical sciences, the savant can always foresee exactly what fact will succeed or accompany another given fact. Thus the astronomer can announce a thousand years in advance the exact minute when an eclipse will take place. The chemist combining two substances in a crucible knows just what compound will result and what its properties will be. The same power enables the geologist to enumerate the various strata that will be encountered in piercing a tunnel or in sinking a mine-shaft. But, it is asked, can the economist, the historian, and the statesman tell us anything in advance concerning social and political events? Is it not true that, at the most, they can but venture conjectures which are as often as not discredited by actual occurrences? Prophecy or prevision may sometimes be possible to the intuitive mind of a genius, but in the social sciences scientific prediction is impossible.

The above argument is based on a twofold error, regarding the meaning of the expressions "natural law" and "free will." We are in the habit of representing natural law figuratively as an inflexible, unchangeable power, commanding unconditional obedience. But natural law is really nothing more than the expression of certain relations which arise spontaneously among things or among men. These relations may, to be sure, be called necessary ones, *but only when certain foregoing conditions are fulfilled.* Atoms of hydrogen and oxygen do not necessarily produce water; but if one atom of oxygen is placed in contact with two of hydrogen under certain conditions of temperature, pressure, etc., they will form water. Similarly, men are not obliged to buy and sell, but if a man disposed to sell meets a man disposed to buy, and if their offers are mutually acceptable, they will necessarily make a transaction at a price which may be determined; and this transaction will be none the less a free contract.

Free will is commonly understood to mean the power to do just as one pleases, without cause or reason. To act without an appreciable cause, however, is, as a little reflection will show, precisely what a madman does. The conduct of every reasonable man is determined by motives, and there are always sufficient *causes*, known or unknown, for his actions.[1]

Even those practical people who most vehemently deny that economists can foretell happenings in the economic world constantly employ the art of prevision in the ordinary course of their lives, and in the management of their everyday affairs. Every one who speculates — and who is there that does not speculate to some extent — resorts to prediction after his own fashion. The financier who purchases shares in a railroad company foresees, or thinks he foresees, the progressive increase of traffic along a certain line; and the high price he pays for these shares indicates (whether he wills or not) his firm confidence in the permanency and validity of an economic law. It is evident, however, that everybody who travels, or sends goods by this railroad, does so only because he chooses to do so, *i.e.* because he *wills* to do so.

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[1] Renouvier, in his "Classification des Systèmes Philosophiques," has called attention to the fact that even if the conduct of men were the result of accident, pure and simple, rational prevision and prophecy could readily take place within the limits we have indicated, because the mathematical doctrine of probabilities enables us to foretell, for instance, how often a given number will come out in a game of roulette. How much more ought it to be possible, therefore, to foretell the conduct of rational beings! If we had to do with men infinitely wise, it is probable that the prevision of human conduct would become as infallible as the prescience of the movements of heavenly bodies.

Without doubt, economic prophecies are often shown to be false by subsequent events.[1] But if our previsions in political economy are uncertain, and do not penetrate far into the future, the reason for this must not be sought in the play of free will, but simply in our ignorance of the causes at work, — just as in meteorology, for instance. Every thinking man is sure that wind, rain, hail, and storms are not the result of mere chance; he does not for a moment doubt that they are governed by natural laws. Yet previsions in this domain are by no means more accurate than in the domain of economics. A commercial crisis can be foretold a much longer time in advance than the coming of a cyclone; the trips of a railroad train between two cities are certainly less variable than the tides of streams, despite the fact that the former are regulated by man, and the latter determined by the forces of nature.

III. The Formation of Economic Science

In a French book by Antoine de Montchrétien, entitled, "Traicté de l'Œconomie Politique," the science of political economy in 1615 first received the name now applied to it. The word *economy*, or *economics*, was, however, already in use before that date, and one of the books of Xenophon even bears this word as a title. But for the ancients it meant what we may call domestic economics, or household economy (*οἶκος*, household, and *νόμος*, law or rule). The qualifying adjective, *political*, indicated that the science had to do, not with the economy of the household, but with that of the body politic, or the nation. This new designation arose at a time when an important historical transformation was taking place: the establishment of the great modern states of Europe. To-day, as we have already said, the name *social economics* is often used in place of *political economy;* and although the etymological meaning of these words is exactly the same, the adjective *political* is preferable because, like *economy*, it is of Greek origin. At present, however, these terms have a different meaning, which we have already explained.

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[1] As an argument against the existence of natural laws in social matters, the fact is adduced that many things do not take place in the way *foreseen*. But what does this prove save our ignorance? Think, on the other hand, how often things fail to happen as *willed* or desired! Does not this demonstrate that there are stronger forces at work in the world than the will or desires of men?

Some of the questions which are to-day called economic, have at all times attracted the attention of mankind, — such questions as money, commerce, and the means by which citizens and the state may grow wealthy. The mediæval church fathers condemned luxury, the inequality of fortunes, and loans at interest. The authors of antiquity, Aristotle among others, carefully analyzed the nature of money, the separation of trades, and the methods of acquiring property. But they failed to perceive the bond that unites these different problems. They did not conceive the possibility of making these matters the object of a completely distinct science, and regarded them rather as the accomplishments of a philosopher than as the equipment of a scientist. Whatever was proposed regarding these matters was offered in the form of good advice to sovereigns and individuals, not as the firm results of an established science.

The discovery of America gave the first impetus to the development of a true economic science in the course of the sixteenth and seventeenth centuries; what had previously been mere incoördinate advice took the shape of a composite, coördinate, logical system of doctrines. Countries like France, Italy, and England, seeing with envious eyes how Spain was becoming wealthy by means of her mines in the New World, sought to discover how they too might procure gold and silver. This was precisely the title of a book published by an Italian, Antonio Serra, in 1613 (before that of Montchrétien), viz., "A Brief Discourse on the Possible

Means of causing Gold and Silver to abound in Kingdoms where there are no Mines." It was believed that this means consisted in the sale abroad of manufactured products; and, with this purpose in view, efforts were made to develop foreign trade and home manufactures by an elaborate, complicated, and vexatious system of regulations to which the name *mercantile system* has generally been applied.

A strong reaction against these doctrines took place in the middle of the eighteenth century, especially in France. At this time the uppermost thought in the minds of people seemed to be a return to the "state of nature," and the repudiation of all artificial arrangements. All the literature of the eighteenth century is impregnated with this feeling. Its influence is manifest in the political science of the period, and in the writings of Rousseau and Montesquieu. Montesquieu's book on the "Spirit of Laws" begins with the immortal phrase, "Laws are the necessary relations *resulting from the nature of things;*" and in the preface of the same work he declares, "I have not drawn my principles from my prejudices, but from the nature of things."

It was then that economic science really began. In 1758, one of the physicians of the French king Louis XV, named Quesnay, published his "Tableau Economique."[1] A group of eminent men soon became his disciples and adopted the name of *physiocrats*[2] or *economists*. The physiocratic school introduced two new ideas in economic science, — ideas that were diametrically opposed to the mercantile system. These were: —

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[1] In 1755 Cantillon had published his "Essai sur la Nature du Commerce," written as early as 1725. This book has recently been brought to light again by English economists, and is by one of them designated as the first methodical treatise on political economy. The work, however, was generally unknown, and has exerted an influence on the development of the science only through the physiocrats, who were familiar with it, and borrowed much from its contents.

[2] *Physiocracy* is composed of two Greek words meaning the "government of nature." One of the most illustrious disciples of this school, Turgot, not only laid down its principles in his remarkable writings, but actually applied them during his terms of office as intendant of Limoges and later as minister to Louis XVI of France; he decreed the freedom of trade, the abolition

(1) The superiority of agriculture over commerce and industry. The physiocrats regarded only the soil as the source of wealth, because it alone gives a *net product.* The classes of society other than farmers are *sterile* classes.

(2) The existence of a "natural and essential order of human societies" — these very words form the title of a book written by one of the physiocrats, Mercier de la Rivière — which we should learn to recognize, and to which we should strive to conform. They therefore declared that it is useless to devise laws, regulations, and systems, when all that we need do is to *let things alone.*

The first of these principles, although it brought about a fortunate reaction against the errors of the mercantile system, was partly erroneous, or at least exaggerated; and the error or exaggeration led to the destruction of the new school. The second principle, on the other hand, served during nearly a century as the foundation of the whole edifice of political economy. And it is true that facts in themselves cannot form the basis of a science unless we have discovered that they are bound together by relations of cause and effect, — that they form an "essential and natural order."

The publication in 1776 of "An Inquiry into the Nature and Causes of the Wealth of Nations" by a Scotch professor, Adam Smith, marks an era in the history of political economy. During nearly one hundred years this book has assured the unquestioned preëminence of the English school of economists. It procured for its author the title, not fully deserved, of "father of political economy."

Adam Smith rejects the first physiocratic principle and gives industry its legitimate place in the creation of wealth. But he confirms and develops most brilliantly the second

of interior duties and the tariff on wheat, and the liberty of labor (by abolishing trade corporations or guilds).

tenet, *i.e.* the existence of natural economic laws, and the let-alone policy, at least as a rule of practical conduct. He was, moreover, much superior to the physiocrats in observing facts and in profiting by the lessons of history. His studies extended over nearly the whole field of economic science, which has scarcely been enlarged since his time.

Only a short while after Adam Smith, three economists came forward almost simultaneously with theories that have occupied the minds of men for half a century. Two of these economists were Englishmen. The first, Malthus, is the author of a celebrated theory concerning the increase of population,[1] which, although it concerned a matter of a somewhat special nature, was destined to have a great influence upon the whole science of economics. The second was Ricardo,[2] quite as celebrated because of his theory of the rent of land, but whose misuse of the abstract and purely deductive method of investigation later gave rise to a vigorous reaction. The third author of this group was a Frenchman, Jean Baptiste Say,[3] whose "Traité d'Economie

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[1] The Rev. Thomas R. Malthus first published his book anonymously in 1798 under the title, "An Essay on the Principle of Population as it affects the Future Improvement of Society." The Essay passed through six editions in the author's lifetime, and in each of them he introduced various additions and corrections. Although the last edition is dated 1826, that of 1817 is the last that was fully revised by the author, and presents the text substantially as it has since been reprinted. A cheap edition is published by Ward, Lock & Co. (1890). A good selection of chapters from the book is contained in the "Economic Classics" edited by Professor W. J. Ashley, and published by the Macmillan Co. The student of Malthusian theories should consult James Bonar's "Malthus and his Work" (London, 1885) and a keen criticism of the Malthusian theory of population by Dr. Frank Fetter, "Versuch einer Kritik der Malthus'chen Bevoelkerungslehre" (Jena, 1895).

[2] David Ricardo's principal work is the "Principles of Political Economy and Taxation." The first edition appeared in 1817; the third, with many additions, in 1821. The best edition now in use is probably E. C. K. Gonner's, published in the "Bohn Library," London, 1891.

[3] Say's book has been translated into English by C. R. Prinsep, who prepared a so-called "Fourth American Edition" in 1830 under the title "A

Politique," published in 1803, is remarkable for its clear style, its systematic arrangement and logical classification, rather than for depth of thought. Translated into all the languages of Europe, this book was the first truly popular treatise on political economy, and has served more or less frequently as a model for the innumerable well-known manuals of economics that have been written since then.

It was particularly Say's book that set forth clearly (with some exaggeration, but an exaggeration that was salutary at that formative period of the science) the prevailing conception of political economy as a natural, purely expository science. Adam Smith had defined economics as "proposing to enrich both the people and the sovereign," thus giving a practical aim and purpose to the study. But Say, amending this definition, writes, "I had rather say that the object of political economy is to make known the means by which wealth is produced, distributed, and consumed," and he named his book accordingly.[1]

Thus political economy was firmly established in its classical form. From this time on, there arose a large number of "schools" whose differences of opinion we shall now briefly indicate.[2]

Treatise on Political Economy, or the Production, Distribution and Consumption of Wealth."

[1] "Traité d'Economie politique ou simple exposition de la manière dont se forment, se distribuent et se consomment les richesses."

[2] The best-known general histories of political economy are: —

Ingram, "A History of Political Economy." Written from the standpoint of an adherent of the "historical' school.

Blanqui, "History of Political Economy in Europe." Rather a history of economic policies than of economic theories and doctrines. This book, moreover, is not up to date, but does contain good chapters on antique, mediæval, and early modern economic systems.

Cohn, "History of Political Economy." Supplement to the Annals of the American Academy of Political and Social Science, Philadelphia, 1894.

Cossa. "An Introduction to the Study of Political Economy." London, 1893. This book contains an Historical Part giving extensive biographical and bibliographical notices. It is, however, scarcely a book for beginners, besides being a poor translation of the Italian original.

IV. Differences of Opinion concerning Method[1]

In scientific language the term "method" is used to designate the road that must be followed to lead to the discovery of truth.

The *classical school* of economics, especially as represented by Ricardo, preferred to employ the *deductive* method. This method starts from certain general data that are conceded to be beyond dispute, and then by way of ratiocination proceeds to deduce an infinite series of propositions. Geometry may be taken as a type of the sciences that employ the deductive method. Law students will readily recognize that law itself, particularly Roman law, employs the deductive method; the Roman jurist, starting from a few principles laid down by the Twelve Tables or found in the *jus gentium*, proceeded to construct that huge monument of learning called the Pandects. Similarly, in economic science, the classical school began with the celebrated axiom that "man

Eisenhart, "Geschichte der National-Oekonomik." Second edition, Jena 1891. Probably the most available of German histories, very suggestive and deserving English translation.

Moritz Meyer, "Die neuere Nationaloekonomie." A brief but good account of economic science since Adam Smith, with special reference to the historical and socialistic tendencies.

Espinas, "Histoire des Doctrines Économiques." Paris, Colin & Cie. An excellent little history for the period of Adam Smith and preceding epochs, but entirely inadequate for those that follow.

Price, "A History of Political Economy in England" is a convenient little volume on the history of English economic theories.

Roscher, "Geschichte der National-Oekonomik in Deutschland" is typical of the thoroughness and erudition of the author, one of the foremost German economists of the historical school.

Block, "Les Progrès de la Science Économique depuis Adam Smith." Second edition, two volumes. This book, written by a man who had charge of the book-reviewing department of the French "Journal des Economistes," from the "classical" point of view, is not chronologically arranged, but divided according to doctrines, — each doctrine being considered separately in the changes that it has undergone since Adam Smith.

[1] A fine discussion of methods will be found in *Keynes*, "Scope and Method of Political Economy." Macmillan, 1891.

always seeks to obtain a maximum of satisfaction with a minimum of trouble" and a few other principles, such as the law of the diminishing returns of land, and thence deduced a series of corollaries that still constitute the framework of economic science.

A new school, called *historical*, or *realistic*, employs and recommends the *inductive* method, — the method that Bacon introduced in the physical and the natural sciences a few centuries ago, and which has given such marvellous results. It starts from the observation of certain definite facts, and bases its general propositions upon these observed facts. For example: the *fact* that all bodies fall, leads to the *law* of gravitation. In the field of economics this method consists in the patient and accumulated observation of all social facts as they are revealed to us, whether in the present by means of statistics or information supplied by travellers, or in the past by means of history.

Indeed, history, by informing us how economic and social institutions arose, and how they have been transformed, is peculiarly fitted to throw light upon the true character of social facts.[1]

Now institutions studied from the historical point of view are known to differ considerably from nation to nation, and from time to time within one and the same country. The twofold characteristic of universality and permanency, which the classical school attributed to economic phenomena, and to which it gave the pompous name of "natural law," thus vanishes into thin air. We no longer attempt to discover general laws governing abstract man, but historical laws governing the relations among men living in a given nation at a given epoch. For this reason the name "national" is sometimes applied to this school of political economy.

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[1] The historical school of economics, like the historical school of jurisprudence founded by Savigny, first arose in Germany. It may be said to date from the publication of Professor Roscher's treatise on political economy in 1854, although books by Professor Hildebrand (1848) and Professor Knies (1853) decidedly manifested the same point of view.

The method just described is safer than the other, since it abstains from all sweeping generalizations. But is it as fruitful? Probably not. It is indeed a delusion to suppose that the use of the purely inductive method can ever be as efficacious in the social sciences as in the physical and the natural sciences. There are two reasons for this. First, because the observation of facts is more difficult in the social sciences. Although at first it may seem paradoxical to declare that it is harder to observe facts that concern us so closely as these, and in regard to which we are not only spectators, but actors also, yet this is the very reason which keeps us from seeing them clearly! Furthermore, social facts are infinitely more diversified; whoever has seen one grasshopper may be said to have seen them all; but whoever has seen one miner cannot be said to know very much about the condition of mining laborers. In reality, the observation of economic and social facts is a task far beyond the capacities of any single person, and one which can only be accomplished by the collective labor of thousands who unite the results of their observation, or of states employing for this purpose the potent means of investigation which governments have at their disposal.[1] Joint observations of this sort have been made the object of a distinct science called *statistics*.

The mere observation of facts, moreover, would never have given the marvellous results obtained in the natural sciences, were it not for the help of a particular method of observation, used under prearranged circumstances and called *experiment*. But in the social sciences experiments are difficult, if not impossible. The chemist, the physicist, and even the biologist (although the latter encounters greater difficulties) can always take a single fact, which he wants to study, and subject it to artificially determined conditions which may be varied at will. In order, for instance, to study the breathing of an animal, he can place it under the bell-jar of an air-pump, and regulate the air-pressure exactly to suit the requirements of the experiment. But the economist, even though he be also a law-giver or an omnipotent despot, does not possess this power to experiment at will. The reasons for this are as follows: —

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[1] One of the most elementary of social facts is assuredly the population of a given group. Yet is it not evident that a single observer is almost powerless to ascertain this fact? Only our governments are in a position to undertake successfully such a task; and only very recently have even our official censuses attained a tolerable degree of accuracy.

(1) He cannot make prearranged experiments unless he has at his service an all-powerful despot. Consequently, instead of directly arranging social experiments, he is obliged to wait for experiments to take place of their own accord, as it were; a fortunate hazard may thus under certain peculiar circumstances provide experiments worthy of study. The application, for instance, of a new law, or the founding of a socialist colony, or the occurrence of an abnormal social crisis, may furnish the economist with the nearest approach to an experiment in the strict sense of the word.

(2) Furthermore, and for the same reason, the economist is obliged to study facts just as they happen to occur, without being able to isolate any of them from the mass of other connected facts with which it is interwoven.

Suppose we want to study the effects of free trade. Suppose, too, that we could take two countries, place them, as it were, under a bell-jar during a sufficiently long period — say half a century — and subject one of them to a régime of absolute free trade and the other to a system of protection. Now, at the end of fifty years, if we should find that the first country had grown wealthy and the second had been ruined, would the problem of free trade thereby be solved? By no means! The experiment, to be sure, would furnish valuable information; but a large number of causes other than the difference of commercial policy — such as different natural environment, racial differences, differences in the prevailing legal institutions or in the energy of the people

— may also explain the different results of the experiment in these two countries.[1]

The new school, therefore, in ridiculing the procedure and methods of the deductive school, is too pretentious and not a little ungrateful. For, after all, the new school employs the same categories of thought as the old school. It has not remade economic science; it has only introduced into it a new spirit. This is, to be sure, an achievement of which it may well be proud. The historical school has itself given rise to much criticism, inasmuch as, by dint of devoting its attention to the observation of facts and of those variations in economic phenomena that arise from time to time and from nation to nation, it shows too strong a tendency to fall into erudition, and to lose sight of those permanent and fundamental causes which everywhere determine economic phenomena. It incurs the risk of remaining purely descriptive. If we were required to give up the attempt to discover permanent relations and general laws, working themselves out under the changing manifestations of economic life, then we should be compelled forever to renounce the hope of building up a science of political economy. Howsoever dangerous for the science far-reaching hypotheses may be, they are infinitely less so than the confession that there is no uniformity underlying economic life in all places at all times. No matter how justified, from certain points of view, the ridicule may be that has been aimed at the abstract man — the *economic man* — of the classical school,[2] we must nevertheless admit that there are certain general characteristics possessed by all mankind. The best proof of this may be found in history itself, which teaches that wherever human societies are placed under analogous conditions the same social types have been evolved. Feudalism in Europe in the twelfth century, and in Japan until the nineteenth century; the successive forms of property and marriage; the simultaneous employment of precious metals as money; identity of funeral rites; and even the uniformity of fairy tales, some of which, according to modern folk-lore, recur in a more or less identical form among a large number of different peoples of the earth; —all these facts exemplify the fundamental identity of human nature the world over.

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[1] Two Australian colonies, New South Wales and Victoria, have a common origin and the same natural environment. The first of these is subject to a system of free trade, while the second pursues a policy of protection. Although this experiment has lasted a long time, it cannot be said that it has solved the problem of protection *versus* free trade. *Adhuc sub judice lis est.*

[2] The classical school regarded man from the exclusively economic point of view and assumed that his conduct is generally determined by intelligent self-interest or egoism. The adversaries of the school insist that this assump-

Therefore we cannot reject absolutely the abstract method, nor the "let us suppose" so dear to the school of Ricardo and so obnoxious to the historical school, nor even the fictitious stories (mockingly called "Robinsonades") of isolated individuals used to illustrate economic principles. The labyrinth of economic facts is far too complex and entangled for us ever to be able to see clearly through it by the aid of observation alone, and to distinguish those fundamental relations which constitute the subject-matter of every science.[1] To bring light into darkness, and order out of chaos, we must make use not only of abstraction but also of imagination, *i.e.* of hypothesis. The proper method of economic investigation proceeds by three stages: —

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tion involves three errors: (*a*) that man has no other than economic motives and interests; (*b*) that man knows always what is best for him; and (*c*) that he will always do what his intelligent egoism dictates. As the critics of the school regard these three assumptions as false, they claim that the economic science built upon them is necessarily erroneous. They maintain that the "economic man," whose sole preoccupation is the accumulation of wealth, whose exclusive motive is economic egoism, and who knows what that egoism dictates, is an unreal fabric of the economist's brain.

[1] Chevreuil declared that "every fact is an abstraction." Although this dictum seems a strange one at the first glance, yet it is easily understood if we but consider that what we call a fact is previously something which has had to be separated out of a host of other connected facts, and for the observation of which abstraction has had to be made of many other things.

(1) *Observing* facts, without any preconceived notion,—especially those facts that at first seem most insignificant.

(2) *Imagining* a general explanation which will enable us to establish between two groups of facts the connecting link of cause and effect; in other words, by formulating an hypothesis.

(3) *Verifying* this hypothesis by determining, with the help of experiment, if possible, or, at any rate, by means of specially conducted observations, whether or not the applied hypothesis exactly fits the facts it proposes to explain and connect.

The above, moreover, is the procedure employed even in the physical and natural sciences. All the great laws which form the basis of modern science, from Newton's law of gravitation down through the list, are only *verified hypotheses.* We may go further than this, and declare that the great theories which have served as a basis for the scientific discoveries of modern times (*e.g.* the existence of ether, in the physical sciences, and the doctrine of evolution, in the natural sciences) are only *hypotheses not yet verified.*[1]

The mistake of the classical school, therefore, did not consist in too frequent use of the abstract method, but in having too often mistaken the abstraction for the reality. For example: After having invented its "economic man," prompted solely by egoism (which it had a perfect right to do), its error lay in believing in the real existence of such a being, and in his existence *alone* in the economic world. It beheld in these abstractions the very foundations of the economic edifice, whereas they represent merely the scaffolding necessary for the construction of the building but erected only to be done away with when once the work is finished. It is not the deductive method, but the dogmatic spirit, that we must be careful to avoid. Hence the deductive method has not been abandoned. On the contrary, it has recently been revived, in a more absolute form than ever, by two new schools of economic thought.

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[1] As Stanley Jevons has observed in his "Principles of Science," the method employed for the discovery of truth in the sciences is similar to that unconsciously used by those who try to find the meaning of rebuses or ciphers on the back pages of some illustrated papers. In order to *guess* what their meaning may be, we imagine some meaning or other. Then we observe whether this really agrees with the figures or pictures before us; if it does not, it is an hypothesis to be rejected. We then conceive another one, and so forth, until we obtain a more successful result, or lose courage altogether. We shall find nothing in facts unless we have previously in our minds an image or a forecast of the truth underlying them.

The first of these is the so-called *mathematical* school.[1] This school considers the relations which arise among men in any given circumstances as relations of *equilibrium*, like those which are studied in mathematical mechanics; and, as in mechanics, this school regards the social economic forces as susceptible of being expressed by algebraic formulæ. To accomplish this, a problem must be reduced to a certain limited number of factors, excluding all others, just as in mathematical mechanics.

The second, or *psychological* school, also called the Austrian school, because of the nationality of its most eminent representatives,[2] devotes its attention almost exclusively to the theory of value, which it regards as the foundation of all economic science. And as value is, according to this school, only the expression of human desires, economic science is reduced to a study of human desires and the causes which intensify or diminish them; the result is a very subtle psychological analysis. Besides, was not the old classical principle (called *hedonistic*, from a Greek word signifying pleasure or enjoyment), which consists in seeking a maximum of gratification at a minimum cost of effort, an entirely psychological principle?

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[1] This school, it is commonly supposed, was begun in France by Cournot, the author of "Recherches sur les Principes Mathématiques de la Théorie des Richesses," published in 1838. This book, of which an English translation was made by N. T. Bacon, in the "Economic Classics" (Macmillan, New York, 1897), had no success whatever until the subsequent reintroduction of mathematical methods in economic science by Jevons, Marshall, and Edgeworth in England, by Walras in Switzerland, Pantaleoni in Italy, Gossen and Launhardt in Germany, and Irving Fisher in the United States.

[2] Professors Karl Menger, von Boehm-Bawerk, and Wieser. The doctrines of this school, which are rapidly gaining ground everywhere, may be found summarized in Professor William Smart's "Introduction to the Theory of Value." The most prominent American protagonists of the school are Professors J. B. Clark and S. N. Patten.

It is evident that these two schools carry the deductive method to its extreme logical consequences. Nevertheless, we must concede that they have not committed the error, into which the old deductive school had fallen, of being led astray by their own speculations. They do not regard the hedonistic principle, or their abstractions, as anything more than *hypotheses* necessary for the establishment of a science in the strict sense of the term.[1]

While the abstract and hypothetical method is thus revived by the modern mathematical school, Say's naturalistic method may also be said to live again in the biologico-sociological school, which considers political economy as a kind of annex to natural history and biology; and which, regarding human societies more or less as organisms, transposes physiological laws to the domain of sociology.[2]

But this school, which for a time prospered, has lost much of its influence. Many sociologists protest against the com-

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[1] In his "Elements d'Economie Politique pure," M. Walras of Lausanne writes, "Pure political economy is essentially the theory of the determination of prices under a *hypothetical* regulation of absolutely free competition." Pantaleoni, in his "Principii di Economia pura," even declares, "Whether the hedonistic and psychological hypothesis (that of the maximum of pleasure with the minimum of effort) whence all economic truths are deduced, coincides or fails to coincide with the motives which actually determine men's actions, is a question which in no wise detracts from the accuracy of truths deduced therefrom."

[2] This point of view is represented principally by Schaeffle, "Bau und Leben des socialen Koerpers"; Lilienfeld, "La Pathologie sociale"; René Worms, "Organisme et Société." These authors emphasize the following ideas: —

Every organic body is composed of innumerable cells, each having its own life and individuality, so that every living being is really only an *association* of millions and billions (more numerous, therefore, than the largest human parison of society to an organism. Herbert Spencer himself, who most brilliantly developed these analogies in his "Principles of Sociology," has protested against the attempt to treat living organisms and human societies as similar.[1]

V. The Various Economic Schools of Thought

Regarding both the right method of study, and the solutions proposed for economic problems, there is a divergence of opinion among economists almost as great as among philosophers. This is incontestably a sign of inferiority. There is little consolation in the fact that political economy is

societies) of individuals which, as Claude Bernard said, "are united but yet remain distinct, like men holding one another by the hand."

Each organized being is subject to the law of the *physiological division of labor.* In very low organisms all the functions are merged together in a shapeless and homogeneous mass; but as organization is perfected, the various functions of nutrition, reproduction, locomotion, etc., become differentiated, and each comes to possess a special organ. In fact, it may be said that the more divided the physiological labor is, the higher is the rank of the organism.

Each living being is the seat of a perpetual movement of *exchange and circulation*, an exchange of services and even of materials; for it is impossible for a function of the organism to become specialized in one single organ, as we have just seen, unless the other parts also fulfil other functions which are essential to life, and communicate the ensuing benefits. Herbert Spencer remarks that "the entire class of men engaged in buying and selling commodities of all kinds, on large and small scales, and in sending them along gradually formed channels to all districts, towns, and individuals, — is along with these channels fulfilling an office essentially like that fulfilled in a living body by the vascular system."

Credit itself is as indispensable for the due working of living beings as it is for that of social organisms. For, as Herbert Spencer says, "If an organ in the individual body or in the body politic [is] suddenly called into great action — that it may continue responding to the increased demand, there must be an extra influx of the materials used in its actions; it must have *credit* in advance of function discharged."

[1] Another eminent sociologist, Tarde, has still more energetically broken away from this tendency by declaring that "the science of sociology will only begin to develop when it has cut the umbilical cord which unites it to its mother, biology." But even this is too great a concession, for we do not at all regard biology as the mother of sociology.

scarcely more than a century old, and in the hope that these disagreements will disappear in time. Other sciences which are no older, and some of which a generation ago were almost unknown, have already found it possible to establish a group of principles sufficiently well-founded to obtain the almost unanimous acceptance of those interested in these sciences. We might be justified in hoping for the same agreement sooner or later among economists, if the disagreement concerned only the observation of phenomena and the explanation of their interrelations. But unfortunately this divergence of ideas concerns the very purpose and aim to be accomplished, the ideal to be worked for, and the means suitable for its realization. It cannot cease, therefore, until the moral, political, and social unanimity of mankind is a realized fact.

In contemporaneous economic thought, we may point out five schools or tendencies that are clearly distinguishable.

SECTION 1. THE LIBERAL SCHOOL

The first of these schools is called *liberal*, because of the celebrated formula which for a long time served as its motto: "laisser faire, laisser passer."[1] But is it really a "school"? To this insinuation its partisans object with some loftiness, and maintain that they represent the science itself. They assume, and for the most part receive even from their opponents, the simple name of "economists." The beginnings of this school coincide as a matter of fact with the origin of economic science itself. The doctrines of the school are very simple, and may be summed up in three points: —

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[1] Its adversaries sometimes call it, ironically, the "orthodox" school. In its origin it is directly descended from the physiocrats (one of whose predecessors, Gournay, is said to have originated the maxim "laisser faire, laisser passer") and J. B. Say. Its principal representatives in the nineteenth century have been Dunoyer, Bastiat, Baudrillart, Courcelle-Seneuil, and Léon Say, in France; Ferrara, in Italy; Francis Walker, in the United States.

(1) Human societies are governed by natural laws *which we could not alter, even if we wished*, since they are not of our own making. Moreover, *we have not the least interest in modifying them, even if we could;* for they are good, or, at any rate, the best possible.[1] The part of the economist is confined to discovering the action of these natural laws, while the duty of individuals and of governments is to strive to regulate their conduct by them.

(2) These laws are in no wise opposed to human liberty; on the contrary, they are the expression of relations which arise *spontaneously* among men living in society, wherever these men are left to themselves and are free to act *according to their own interests.* When this is the case, a *harmony* is established among these individual interests which are apparently antagonistic; this harmony is precisely the natural order of things, and is far superior to any artificial arrangement that could be devised.

(3) The part of the legislator, if he wishes to insure social order and progress, must therefore be limited to developing individual initiative as fully as possible, to removing whatever might interfere with such development, and to preventing individuals from meddling with one another. Therefore

The English economists who succeeded the great founders of the science have been ironically designated as the *Manchester* school, consisting of such authors as MacCulloch, Senior, Cairnes; they may be considered as belonging to the liberal school, except that they are not quite so optimistic as the French liberals, but even more dogmatic than they. John Stuart Mill's fine book on the "Principles of Political Economy," first published in 1848, is the first to manifest any leaning toward socialism.

Most French economists have remained faithful to the classical or liberal school. M. de Molinari is its most ardent disciple, and M. Paul Leroy-Beaulieu is probably its most eminent representative in France to-day, where the monthly "Journal des Economistes" defends the tenets of liberalism, while the "Revue d'Economie politique," edited by Professors Paul Cauwès and Charles Gide, inclines to the historical school.

[1] "The laws which govern capital, wages, and the distribution of wealth are as good as they are inevitable They bring about the gradual elevation of the level of humanity."—LEROY-BEAULIEU, "Précis d'Economie politique."

the *intervention of governments ought to be reduced* to that minimum which is indispensable to the security of each and of all, — in a word, to the policy of "let alone." [1]

This conception certainly lacks neither simplicity nor grandeur. Whatever may become of it in the future, it possesses at least the merit of having helped to establish the science of political economy; and if other doctrines are bound permanently to take its place, it will, nevertheless, remain the foundation on which new theories are built.

The most serious complaint that can be made against this body of teaching is its marked tendency to *optimism*, which appears to be inspired far less by a truly scientific spirit than by a desire to justify the existing order of things. Undoubtedly, from a consideration of the economic organization of a society and of the institutions which are its groundwork, the conclusion may be drawn that they are beneficial, at any rate in certain aspects; for the very fact of their existence and duration shows well enough that they have a value which is at least relative; further, that they are natural is a just conclusion to draw, for they are evidently determined by the series of previous states which produced them. But in no wise can it be inferred that they are the best possible; such a conclusion is altogether illogical.[2]

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[1] "We assert that these natural laws govern the production and distribution of wealth in the manner that is most useful, *i.e.* most conformable to the general good of the human species. Observation of these laws, together with the smoothing away of natural obstacles which impede their action, and especially the prevention of any artificial obstacles, is sufficient to render the condition of man as good as is consistent with his acquirements and his industry. Our gospel, therefore, is summed up in these four words, 'Laisser faire, laisser passer.'" — DE MOLINARI, "Les lois naturelles."

Bastiat's famous work, the "Harmonies économiques," is nothing but the development of similar ideas.

[2] Auguste Comte protested in the name of science against "the systematic tendency to optimism, which is clearly theological in origin" (Cours de Philosophie Positive, 48th lesson). But this doctrine cannot offer even the excuse that it agrees with theology, as Comte supposes; for Christian theology is nothing less than optimistic. On the contrary, in its eyes the actual

The idea that the prevailing economic order is the spontaneous product of liberty, and that it could be replaced only by an order founded on constraint and therefore worse than the present one, is not well-founded. The present order of things is, at least in part, the result either of war and brutal conquest (*e.g.* the appropriation of the soil of England and Ireland by a small number of landlords, originating historically in conquest, usurpation, or confiscation), or of legislative enactments passed by certain classes of society in their own interest (*e.g.* laws of inheritance, fiscal laws, etc.). Therefore, if the world were to be made over again, and if it could be rearranged under conditions of absolute liberty, there is no proof that it would be at all like the world of to-day.

Nor is it any more legitimate to conclude that because natural laws are permanent and immutable, existing economic facts and institutions should also possess this character of permanence and immutability. That, too, is a sophism, not to say word-jugglery. If, on the other hand, as contemporary science shows a tendency to believe, the natural law *par excellence* is that of evolution, then it must be conceded that natural laws, *far from excluding the idea of change, always presuppose it.* When it is maintained, for example, that the wage-system is bound to disappear, because, just as it has succeeded serfdom and slavery, so it too will be replaced in turn by coöperation or some other system not now namable, we may, of course, criticise this line of argument; but we cannot maintain that it is contradictory to natural laws, for these very laws cause the same plant to produce, successively, first seed, then flower, then fruit.

Not only do economic facts and institutions change, but *our will is by no means powerless to bring about these changes.* Indeed human will is every day, and in the most efficacious

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order of things and all the manifestations of human liberty are irretrievably vitiated by the Fall.

manner, exercised on physical facts for their modification according to our needs. This reasoned human influence on natural phenomena is not in the slightest incompatible with the idea of natural law. On the contrary, it is closely bound up with it.[1]

We need only open our eyes to perceive man's marvellous power to modify natural phenomena. Undoubtedly there are some things, which, by reason of their magnitude or their remoteness, escape all human influence. Such, for example, are astronomical, or geological, or even meteorological phenomena; we must submit to them in silence; our faculty of prevision cannot enable us to avoid the approach of a comet or the shock of an earthquake. But how many other domains there are in which our science is almost supreme! Most of the compounds of inorganic chemistry (including the most important ones) have been produced by the scientist in his laboratory. When we watch the cattle-raiser in his stalls, the horticulturist in his gardens, ceaselessly modifying animal or vegetable forms and creating new varieties, it seems as if animate Nature herself submitted to the process of alteration at our pleasure. Even atmospheric phenomena do not entirely escape the power of human industry, which makes bold to assert that by clearances or by new plantations, it can modify the weather, and, repeating the miracle of the prophet Elisha, bring down rain and dew from heaven whenever it wishes.

How much truer it is, therefore, that our influence may be exerted on economic facts, precisely because they are acts performed by man, and because we have immediate control over them![2] Without doubt, here, as in the domain of physical phenomena, our influence is confined within certain limits that science seeks to determine, and which all men, whether acting individually by means of private enterprise, or acting collectively under legislative regulation, should strive to keep in mind. In this connection we may appropriately be reminded of Bacon's old adage to the effect that facts can only be modified on condition that we recognize the natural laws which govern them, and conform to these laws: *naturæ non imperatur nisi parendo.* Alchemy strove to turn lead into gold; chemistry has abandoned that useless quest, having found that these two bodies are simple elements, or at least irreducible ones; but it has not renounced the attempt to convert charcoal into diamond, for in this case it has established the presence of one single body in two different states. The Utopian uselessly tortures nature to obtain what it is powerless to give; but the man of science seeks only what he knows to be possible. The sphere of this "possible" is infinitely more vast than the classical school imagines.

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[1] As M. Espinas wittily remarks in his book on "Les Sociétés animales," "If human activity were unable to change the order of things, the act of boiling an egg would have to be regarded as a miracle."

[2] Even the representatives of the determinist school, those who go so far as to deny free will (and surely the "liberals" cannot be among them), recognize that man has the power of modifying the order of things in which he lives. They make only the reservation that every modifying act of man

SECTION 2. THE SOCIALIST SCHOOL

The socialist school is as old as the classical school; older, we may even say, for there were socialists long before there was any science of political economy. It was, however, only after economics had taken a scientific character that socialism, by antagonizing the newly established science, was first clearly formulated. As the doctrines of this school are especially of a critical nature, and show considerable divergency, they are much harder to formulate than those of the preceding school.[1] Yet they may be summed up as follows:—

All sects of socialists believe that the organization of modern societies is tainted by certain deep-seated defects,

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is itself *predetermined* by certain causes. This is, however, a problem of metaphysics not to be discussed here.

[1] Socialism, if we leave out of consideration a long line of precursors extending as far back as Plato, is represented in the nineteenth century

and that the present social organization is therefore bound to disappear sooner or later. In their opinion, this organization is not in the least a natural product of liberty, but the result of many acts of injustice and spoliation which have been hallowed by written laws. They maintain that the source of these evils lies in *free competition* and in individual or *private property*. They seek to prove that these two institutions tend to sacrifice the general interest to private interest, and constantly to increase the wealth of a small number of persons while multiplying the number of those that are poor, — thus realizing more and more the old motto : *paucis humanum genus vivit.*

principally by Saint-Simon, Fourier, and Proudhon, in France ; by Owen, William Morris, and the Fabian Society, in England ; by Karl Marx, Lassalle, Rodbertus, and Friedrich Engels, in Germany ; by Colins, de Paepe, and Vandervelde, in Belgium. Socialism, in the United States, aside from numerous small religious communities organized on a socialistic basis, is almost entirely of foreign importation ; although Edward Bellamy's romance "Looking Backward" has probably been the most widely read socialist utopia of modern times.

French authors have contributed most to the older *utopian* socialism ; but the Germans have given modern socialism, called *collectivism*, its distinctive physiognomy. The theory called *anarchism* is due principally to Proudhon and the Russians Bakunin and Kropotkin. It has been widely propagated only among the Latin races, *i.e.* in France, Spain, and Italy. Russian *nihilism*, generally confounded with anarchism, has nothing to do with it.

From the very extensive bibliography of socialism and anarchism we refer the student to the following books : —

Rae, "Contemporary Socialism." *Kirkup*, "History of Socialism." *Graham*, "Socialism Old and New." *Zenker*, "History of Anarchism." *Laveleye*, "Socialism of To-day." *Schaeffle*, "Quintessence of Socialism." *Dawson*, "German Socialism and Ferdinand Lassalle" and "Bismarck and State Socialism." *R. T. Ely*, "Labor Movement in America." *Winterer*, "Le Socialisme Contemporain." *Bourdeau*, "L'Evolution du Socialisme." *Kautsky*, "Karl Marx' Oekonomische Lehren." *Flint*, "Socialism." "Die Geschichte des Socialismus in Einzeldarstellungen," published by Dietz at Stuttgart, and written by a number of well-known socialists in several volumes. "Fabian Essays on Socialism." *Janet*, "Les Origines du Socialisme Contemporain." *Métin*, "Le Socialisme en Angleterre." *Von Waltershausen*, "Der Moderne Socialismus in den Vereinigten Staaten." *Webb*, "Socialism in England."

They therefore prophesy a new order of things in which private property, if not completely abolished, will at any rate be continually reduced. According to the extent of their demands in this direction, they may be classified thus: — those who favor the entire suppression of private property in all kinds of wealth are called *communists;* those who favor the suppression of property in the instruments of production are called *collectivists;* those who favor the suppression of property in land and buildings are called *nationalists.*

As for the details of the future society there is much disagreement and doubt. The old socialists (Sir Thomas More, Saint-Simon, and Fourier), who are sometimes disdainfully called "utopian" and whose doctrines are nowadays somewhat — perhaps too much — discredited, attempted to build up a complete social structure based on an *a priori* conception of justice. The others, who proudly assume the title of *scientific socialists* (Karl Marx, Lassalle, Friedrich Engels) assert that this future society will issue forth from the present society like a butterfly from its chrysalis. They refuse to describe its features. The most interesting and original part of their thesis consists in the attempt to prove that the society of the future is already contained, in an embryonic state, in the womb of our modern societies, which are nearly ready for its birth.[1] They point out certain features of present society, which, in their opinion, are the preliminary symptoms of a socialistic state: production on a large scale, trusts, machine industry, the development of public services, etc.

The classical school maintains that the socialists deny the existence of natural laws. This is by no means true, for the "scientific socialists" are ultra-deterministic. The liberal school in its use of the term "natural law" implies the idea of stability and immutability, but the contemporaneous school of socialists employs the same term as implying the idea of change and of ceaseless transformation. They do not agree with Bastiat in regarding human societies as turning round a fixed point in an eternal and changeless equilibrium. They consider society to be like a plant or an animal, which from birth to death undergoes constant transformation. We must admit that the latter point of view is in better harmony with contemporary science. Besides, most socialists expect a revolution, and regard it as indispensable for the substitution of the new social order for the old. Coming from evolutionists, this opinion may at first appear surprising; they seek to justify it, however, by calling attention to the fact that the process of evolution often involves a crisis, *i.e.* the sudden and perhaps violent passage from one state to another. As illustrations of this they mention the chrysalis, which, before becoming a butterfly, must tear away its cocoon; or the chicken, which, to leave the egg, must break the shell with its beak.

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[1] So far as any attempts have been made to outline the collectivist society of the future, a description may be found in Schaeffle's "Quintessence of Socialism," Gronlund's "Coöperative Commonwealth," and G. Renard's "Le Régime Socialiste." See also the "Fabian Essays" (London).

All these schools (save one alone, the anarchist school, which, on the contrary, is violently individualist) are naturally disposed to extend as far as possible the functions of the government, since their aim is to transform into public agencies all that which to-day springs from private enterprise.[1]

It is impossible in this chapter to estimate the value of the criticisms directed by socialists against the present social order; we shall hereafter refer to them repeatedly. Suffice it to say here, in explanation of the rapid growth of socialism, that these criticisms contain a large share of truth, and have, taken all in all, exerted a salutary influence on the thought and tendency of the century.

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[1] It is only, however, as a transitional step that socialism asks for the extension of the functions of the government. For it professes the greatest contempt for the State as it is to-day, — the *bourgeois* State, as it terms it, — which looks after its interests and carries on its enterprises by the same methods as individuals. In its plans for reorganizing society, this school avoids the word "state," and prefers to use the term "society." The State, in the socialist plan, is to lose all political character, and to become purely economic; it is to become something analogous to the administrative council of a huge coöperative society embracing the entire country. It is in this respect that true socialism, — proletarian socialism, called "social democracy" in Germany — differs from *state socialism*.

But as a positive doctrine, *i.e.* as proposing a new system to be substituted for that under which we live, socialism remains conjectural. The ideal future state announced as coming seems to be neither realizable nor, from many points of view, even very desirable. All the proposed systems, after having won over a few enthusiastic disciples, have been abandoned or continue to exist only as vague hopes; and as for the programme of so-called scientific socialism, many of its disciples are beginning to doubt that it has pointed out the true course of economic evolution. (This subject will be discussed under the title "Collectivism" in Book V.)

SECTION 3. STATE SOCIALISM

This doctrine should by no means be confounded with the preceding one. It represents, on the contrary, an antidote for social democracy, and is generally as popular with established governments as the other is with the revolutionary parties that seek to overthrow them.

It is closely connected in its origins with the historical school, of which we have spoken in the preceding division. The historical school was first distinguished from the classical school only in point of method; but it soon came to differ from it in its tendencies and its practical programme. It began by absolutely rejecting the characteristic principle of the liberal school, that of "laisser faire." It gave a *practical aim* to political economy; it regarded the old separation of art and science, at least in the social sciences, as antiquated, and thus returned to the position of the earlier economists. Although this school concedes that we cannot modify economic institutions so completely as to transform history, it maintains that with due regard for history we can, and should, modify these institutions to some extent.[1] It maintains that science should include art, and that the past is allied with the future. That which *is*, that which *will be*, and that which *ought to be*, — are all inseparable and should be studied simultaneously.

The small importance attached by this school to the idea of natural law explains precisely why it attaches so great an importance to *positive laws* made by legislators, and considers them one of the most potent factors of social evolution.[2] Far from sharing the dislike or the misgivings of the liberal school in this respect, it favors a considerable extension of the functions of the state.

This school has exerted a wide influence in recent years, not only in the thoughts of men, but in legislation as well. Most of the laws, enacted during the past twenty years, known as *labor laws*, as well as a strong movement in favor of an international regulation of the conditions affecting labor, are largely due to the influence of this school. It has certainly rendered a great service to science in widening the narrow, factitious, too simple, and irritatingly optimistic point of view that prevailed in the classical school. It has abandoned entirely the attitude of systematic abstention from all practical matters, and to the question, "What should be done?" it is not satisfied to give the sterile answer, "Laisser faire."

It has also been helpful in showing that the extreme mistrust of the state, manifested by the liberal school (which would leave to the state hardly more than the work of preparing the way for its own progressive abdication) is not scientifically well-founded. History has shown the state to be a very active factor of social progress (*e.g.* the abolition of slavery, of serfdom, of guilds, and the enactment of industrial laws), and an institution whose powers are steadily increasing. Individual initiative is often powerless to bring about great social modifications. The great objection to state socialism is that the state, even when it accomplishes reforms that are good in themselves, usually can do this only by means of laws, *i.e.* by means of constraint. But in every association, even voluntary, it is fully admitted that the minority should bow to the will of the majority. Moreover, the state does not always act by means of coercion, prescribing or forbidding this or that; very often it acts by way of example, when it employs labor; or by way of assistance, when it supports social institutions, financially or otherwise, or when it places at the disposal of its citizens such institutions as schools, pension funds, or insurance organizations.

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[1] For instance: whereas the classical school considers property in land and the wage system permanent institutions due to necessary and general causes, the historical school considers them simple "historical categories," that are due to various causes, and have taken very different forms, according to time and place.

[2] "The laws with which political economy is concerned, are not laws of Nature; they are the laws enacted by legislators. The former are beyond the will of man; the latter are its product." — De Laveleye, "Eléments d'Economie politique," p. 17.

Another grave objection which has been raised against state socialism is that too often the state has shown the most deplorable incapacity in economic matters, and has at times become the instrument of parties, rather than the economic organ of the whole nation.[1] But these defects are due less to the essential nature of the state than to its present organization. We must not forget that the state, even in countries that are most advanced from a political point of view, — we may say, especially in these countries, — was organized for the purpose of political functions, and by no means with a view to economic functions. The division of labor in matters of government is still embryonic; governmental power is unstable; franchise systems, even that which is called "universal," and which does not always represent the will of the majority, are crudely organized; — all these circumstances unfit the state for the accomplishment of economic purposes. But it is reasonable to hope that when the state is constituted with a view to its new functions, it will be able to exert a better and stronger influence in the economic domain than it has thus far exerted.

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[1] Professor Leroy-Beaulieu, in his "Précis d'Economie Politique," gives an excellent summary of the various objections urged by the liberal school against the extension of the functions of the state. His objections are: —

(1) The state lacks *initiative* and *activeness*, because it is not subject to the spur of egoism and competition.

(2) It possesses no real superiority over individuals, either from the point of view of *capacity*, or *impartiality*, or even in *continuity of purpose*, when we consider the origin, the manner of working, and the inevitable vicissitudes of every form of government, especially that form which is tending to become universal, *i.e.* democracy. See Herbert Spencer, "Man *versus* the State."

SECTION 4. CHRISTIAN SOCIAL REFORM

This school may be divided into two branches, which differ widely in their ultimate goals, but which have the same starting-point and correspond naturally to the two great divisions of the Christian church.[1]

The *Catholic School*[2] firmly believes, with the classical school, in the existence of natural laws, which it terms *laws of Providence*, and which govern social facts as well as the facts of the physical world. Only, it believes that the operation of these providential laws may be seriously interfered with by the evil use of human liberty, and that this is precisely what has taken place. Through the fault of man, the world is not what it ought to be, — not what God wanted it to be. Differing from the liberal school, Catholic reformers are by no means optimistic; they do not consider the social order as good nor even as naturally tending toward betterment. Above all, they have no confidence in the let-alone policy for establishing harmony and assuring progress, since, on the contrary, they regard liberty, or at least what is called *liberalism*, as the true cause of social disorganization.

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[1] The chiefs of this school belong either to the Church (von Ketteler, the Bishop of Mayence, Pastor Friedrich Naumann, Cardinal Manning, the Archbishop of Westminster) or to political life (Count de Mun in France, Prince Liechtenstein in Austria, and M. Decurtius in Switzerland). In England the names which most frequently recur in connection with Christian socialism are those of F. D. Maurice, Kingsley, Vansittart-Neale; in the United States, those of R. T. Ely, W. D. P. Bliss, G. D. Herron, and R. Heber Newton. Consult: Nitti, "Catholic Socialism"; Kaufmann, "Christian Socialism"; Joly, "Le Socialisme Chrétien"; Peabody, "Jesus Christ and the Social Problem."

[2] Gide's distinction of the Catholic and Protestant schools of social reform, although perfectly clear to a French reader, is scarcely intelligible in this country, where Protestants and Catholics often have adopted similar social reform programmes, and where membership of the same religious community by no means indicates an agreement concerning social questions.

The vehemence of the criticisms which the Catholic school directs against the present social organization, against capitalism, against profit, against interest (which the Church in the Middle Ages designated as usury —*usura vorax*), against stock companies, against free trade and all forms of internationalism, and, above all, against free competition, has led the liberal economists to give it the name of *Catholic socialism*. It objects strenuously, however, to this designation, and despite many points of view which suggest a community of thought, it differs *toto orbe* from the socialist school. First of all, it by no means proposes to abolish the fundamental institutions of the present social order, — property, inheritance, the wage-system, — but rather to restore and to strengthen them. Furthermore, it in no wise believes in evolution or the unlimited progress of mankind, and is much less inclined to seek its ideal in the future than in a return to institutions of the past, such as rural life, and especially guilds of employers and employees. Finally, it professes as little confidence in the principle of equality as in that of liberty, and counts on reëstablishing social peace by means of three kinds of authority: that of the *father*, in the family; that of the *employer*, in the workshop; and that of the *Church*, in society as a whole. It is of course understood that these three kinds of "social authority" imply commensurate duties.

Generally speaking, this school is not hostile to the intervention of the state, which is, "after the Church, God's minister for good." It even formally favors such intervention to assure Sunday rest to the laboring classes, the regulation of labor within just limits, etc. However, one section of the Catholic school is as much opposed to state intervention as the liberal school, and this problem has given rise to very lively discussion among Catholic social reformers.

The strongest objection that can be urged against this doctrine, omitting all controversy in the field of politics or religion, was long ago formulated by John Stuart Mill, when he said that there is no instance of any class of society, in the possession of power, ever having used this power in the interest of the other classes of society. There is great danger that any guardianship by the upper classes, if ever they were entrusted with the task of solving the social problem, would confirm Mill's statement.

The *Protestant school* shows quite as little sympathy with the present economic order as the Catholic school. It likewise denounces competition and the pursuit of mere material gain. It regards property above all as a *social trust.* It believes that the world must be radically transformed in order to approach more closely to the "Kingdom of God," —the advent of which all members of the Church should anticipate and work for, even on earth.

Faithful to its democratic traditions, which make of each Protestant church a small republic, it aims to apply the same democratic régime to industry. It does not attempt a solution by means of guilds, which, in its opinion, experience proves unsuitable, and which seem to develop collective egoism. It proposes the so-called coöperative form of association, and maintains that coöperation is the exact antithesis of competition. The "Christian socialists"—as they were called in the days of Kingsley and Maurice—for this reason played an important part in the English coöperative movement of the middle of the nineteenth century.

As for state intervention, it is difficult to discover among Protestants any general programme concerning this point.

We can readily understand that a unanimity of opinion is even less likely to exist among Protestant social reformers than among the Catholics. Opinions vary all the way from Pastor Stoecker's state socialism (in Germany) to Herron's evangelical communism (in the United States). In England, Protestant socialism has been very favorable to the nationalization of land. In France, it has generally advocated the doctrine of social solidarity, which we shall now examine.

SECTION 5. THE DOCTRINE OF SOLIDARITY

In this rapid review we cannot omit a school which is only a few years old, but whose influence is rapidly increasing, — the school that takes "solidarity" for its motto.

The fact of solidarity, *i.e.* the mutual dependence of mankind, clearly demonstrated by the division of labor, exchange, and (as regards successive generations of men) by heredity, did not escape the attention of the classical economists. Bastiat often speaks of it in his "Harmonies Économiques." But he regarded it as a natural law, which did not require the assistance of individuals to work itself out. The school of solidarity, on the other hand, conceives solidarity as the desirable result — the express aim — toward which we should bend our will. Hence it regards as the foundation of solidarity — to say nothing of the natural phenomena of interdependence which are unconscious, and therefore have no moral worth — those voluntary contractual associations and institutions that are created deliberately with a view to developing this feeling. It differs from the liberal school by repudiating the principle of competition and the struggle for life. It endeavors to substitute the principle of coöperation between opposing interests, and the idea of a "union for existence." To those who object that this belittles individuality, it replies that individuality is no less developed by helping others than by helping one's self.[1]

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[1] Vinet, the Protestant critic, has admirably said that "to give one's self, one must own one's self."

It differs from the revolutionary school because it does not believe in the efficaciousness of revolution or expropriation as a means for transforming man or even his social environment. It works, however, for the realization of the principal desiderata of socialism, such as the insurance of all persons against sickness, accident, etc.; the greatest possible equality of opportunity for all; the transformation of property, inheritance, the wage-system, and taxation; the limitation of money power; the attenuation of competition, etc.

As means to these ends, it advocates association in all its forms, and particularly coöperative association, because this is the most complete of all. But it is not hostile to state intervention whenever labor legislation, sanitary laws, or laws concerning pure food tend to prevent the degradation of the masses; or whenever certain kinds of obligatory insurance or precautionary regulations tend to train the various classes of the nation in the practice of solidarity. It does not forget that the state is itself the oldest and most impressive form of solidarity among men. The fact that this solidarity is obligatory, instead of purely voluntary, does not diminish its power. Doubtless the habit of solidarity does not acquire its full moral value until it becomes voluntary; but the solidarity imposed by law may be indispensable in preparing the way for the fuller development of free coöperation.

This doctrine has succeeded in attracting adherents from all classes and parties: the faithful believers in the old idealistic French socialism of Fourier and Leroux; the disciples of Auguste Comte; the mystical and æsthetical followers of Carlyle, Ruskin, or Tolstoi; those who work in the Church, and those who work in biological laboratories. But its popularity is perhaps due to the fact that its program is still quite indeterminate.[1]

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[1] This school counts more of its adherents among philosophers and sociologists, especially those of France, than among economists strictly speaking. Consult the article on "Solidarity" in Gide's volume on "Coöperation,"

VI. The Wants of Man

The wants of man are the underlying motive of all economic activity, and consequently the starting-point of economic science. Every living being requires for its development and the accomplishment of its purposes some help from without, and must assimilate certain elements of the outside world. From the plant (and even from the crystal) up to man, this necessity increases with the increase of individuality. Every want felt by a living being gives rise to a *desire*, and consequently to an effort to obtain possession of the necessary exterior objects,[1] because their possession implies gratification, whereas the lack of them means suffering.[2]

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the works of Carlyle, Ruskin, and Professor R. T. Ely; Paulsen, "System of Ethics"; and a recent book by Léon Bourgeois, "Solidarité," third edition, Paris, 1902.

[1] Want or desire exists only when it is directed toward a particular object recognized as capable of satisfying it. In this sense, M. Tarde observes that "the first cause of every economic desire is invention" ("La Logique Sociale," Chapter 7). For it is evident that the desire to smoke and to drink spirits could arise only after the discovery of tobacco and after the preparation of alcoholic beverages. Similarly, the habit of cycling owes its origin to the invention of the bicycle.

We are told that "necessity is the mother of invention." This is also true in the sense that invention, or the search for objects and devices that will procure satisfaction, is itself the result of natural wants or instincts, such as hunger, cold, fear, etc. The discovery of tobacco and of alcoholic drinks, or at least the widespread consumption of these things, must evidently respond to a need of the nervous system that is felt by many persons; the invention of the bicycle is the result of the general need for rapid transit.

[2] The wants of man are innumerable. It would be useless to attempt to enumerate them. They may, however, be classified, according to primitive archæology and our knowledge of the customs of savage tribes, under the following heads: —

(1) *Food.* This was certainly the first of wants, inasmuch as the existence not only of man but of every organism depends directly on it. The life of animals and of savage mankind is entirely taken up with the quest for food. In all civilized societies, too, it plays the greatest part. More than half the total wealth of society is produced for use as food.

(2) *Struggle for life*, *i.e.* defence and combat. Next to food, with which it is closely allied, this want is most important. Even among animals it is of

The wants of man have several characteristics, each of which is important because some great economic law is based on it.[1] These characteristics are the following: —

(1) Human wants are *unlimited in number*. This feature distinguishes man from the inferior animals and is the mainspring of civilization in the strictest sense of the word. To civilize a people is to increase its wants.

The wants of humanity are at first like those of a child. At birth the child needs nothing but a little milk and a warm covering; but soon he requires more varied food, more complicated garments, and toys; each year gives rise to new needs and new desires. The more he learns and sees, the more numerous and intense are these desires.

We are to-day conscious of a thousand wants that were

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very great moment, although it does not give rise to any industry among them, — unless we regard in this light the traps that some insects prepare for their victims, like the spider's web. Usually, the weapons used by animals are purely natural.

(3) *Housing*. The need of shelter is felt even by animals, and gives rise among them to many curious industries.

(4) *Ornament*. It may cause some surprise that we give this want so eminent a place. Yet prehistoric archæology and the accounts given by travellers among primitive peoples show that this need is experienced even earlier than the need for clothing. It is the first need that distinguishes man from animals. Théophile Gautier has remarked that "no dog ever conceived of wearing earrings; but the stupid Papuans, who eat clay and earthworms, hang colored berries and shells from their ears, while they go about stark naked."

After these four fundamental wants, others arise and mark the beginnings of civilization. These civilized wants fall under the head of *religion* (charms, idols), *clothing* (which varies according to the requirements of climate, weather, good manners, social rank, and æsthetic taste), *recreation and art* (musical instruments, games, carved bones and stones), *transportation and intercourse* (boats, chariots, social clubs). *instruction* (stone or bronze tablets, papyrus, parchment, books), and *comfort*, the last of all.

The present relative importance of wants is discussed in Book V.

[1] Although the study of human wants is of fundamental importance to political economy, it has been almost entirely neglected, if we except Fourier's somewhat fantastic contributions to the subject. It has, however, very recently been made the subject of an important book by Tarde entitled "La Psychologie économique" (Paris, 1902).

unknown to our grandfathers,—wants of comfort, hygiene, cleanliness, education, travel, intercourse. It is certain also that our grandchildren will feel new wants. 'If we should discover, on another planet, beings superior to men, we should find among them a multitude of wants of which we in this world know nothing. Nations are doomed if they are too easily satisfied, and if their desires do not extend outside the small circle of necessity. Nations whose people are content with a handful of ripe fruit and a sleeping-place in the shade will succumb in the international struggle for life. They are destined to disappear quickly from a world in which they scarcely know how to subsist.[1]

Is this unlimited multiplication of wants commendable? Is it necessary? Is it not to be desired that wants should cease increasing so rapidly? Admitting that the increase of wants gives rise to an increase of production and of wealth, is not nature making a dupe of man, inasmuch as with the satisfaction of every want another want immediately takes its place? Is it not true, therefore, that man is constantly in pursuit of a constantly receding goal, and is unable ever to acquire peace of mind? An example of this is furnished by our working classes, whose envy of other's increases with their own well-being. Would it not, therefore, be better to diminish our wants than to increase our wealth?

Let us not be deceived. If we desire a diminution in the number and intensity of wants that aim at wealth, which to-day make up too great a part of our social activity, this is in perfect agreement not only with Christian ascetics and mystics like Tolstoi, but even with such economists as John Stuart Mill. But this desire is conditioned on the assumption that these wants will be abandoned in order that nobler ones may take their place; for if we simply gave them up without filling their place, that would mean the retrogression of social life toward the animal state.

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[1] The rise of wants through invention, and their propagation by imitation, are studied by M. Tarde in the book already mentioned, and in "Les Lois de l'Imitation."

Moreover, it must be remarked that even purely economic wants are not devoid of moral value,[1] for every new want constitutes a new social bond; generally we can satisfy our wants only with the aid of others, and this fact strengthens the feeling of solidarity. The man who has no wants — the hermit — suffices unto himself, which is precisely what a man should not do. As for the working classes, we should rejoice, not regret, that new wants and desires constantly plague their minds; for without new wants they would have remained in an eternal condition of slavery.

(2) Wants are *limited in intensity*. This is one of the most important propositions in political economy, for on it, as we shall see, is founded a new theory of value.

Wants are limited in intensity because every want is satiable, *i.e.* a certain amount of a certain kind or kinds of wealth will satisfy it completely. It is evident that a man needs only a certain amount of bread to satisfy his hunger, and a certain amount of water to slake his thirst. We may say that a want decreases in intensity up to the point of satiety. Then the want is extinguished and is replaced by disgust or even suffering.[2] It is torture to suffer thirst; but it was also torture, in the Middle Ages, to undergo the "watering operation," by which the victim was compelled to absorb excessive quantities of water.

The more natural a want is, *i.e.* the more *physiological* its nature, the more clearly drawn is its limit. It is easy to tell how many pounds of bread and how many pints of water a man needs. But the more artificial or *social* a want is, the more elastic is the limit marking its satisfaction. It is certainly not an easy matter to tell how many horses would satisfy a sportsman, or how many dresses would lead a fashionable woman to cry "Enough!" or the number of rubies desired by an Indian rajah, or how much money would completely satisfy the wants of a civilized man. Nevertheless, we may say that even for these wants there is a limit; in these respects, too, satiety is inevitable. At all events each new possession gives less pleasure than the preceding one.[1]

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[1] The theory of *historical materialism*, taught especially by the school of Marx (and by Loria in his book on the Economic Bases of Social Organization), considers economic wants the source of all other wants, — political, æsthetic, religious, etc.

[2] This is like the well-known mathematical series which diminish until they reach zero and then increase, as minus quantities, below zero. The degrees of want-intensity are the positive quantities of the series; the degrees of dislike are the negative terms; zero is the point of satiety.

(3) Wants are *competitive*, *i.e.* one want can often be developed only at the expense of other wants which it abolishes or absorbs. According to the proverb, the old must make room for the new; similarly, one want takes the place of another. This simple fact is the basis of an important economic law called the *law of the substitution of wants.* Progress consists generally in replacing inferior wants by higher wants. To combat drunkenness, for example, temperance societies have found nothing more successful than "temperance restaurants" in which an effort is made to accustom people to drinking tea and coffee. We should also note that a material want may give way to an intellectual want (the saloon to the reading-room) or a moral want (when, for example, a laborer deprives himself of a drink in order to pay his dues to a benefit society, a labor organization, or a reform club).

(4) Wants are *complementary;* they form groups. This seems to be antagonistic to the above-named principle, yet it is not so. Are not the persons engaged in any branch of production competitors as well as co-workers? Similarly,

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[1] In the case of money, satiety seems to be most infrequent and improbable. Why? For the simple reason that money is the only kind of wealth which has the property of satisfying, not only *a* specific want, but *all* possible wants; consequently it is desired until all our wants are entirely satisfied. This puts the point of satiety exceedingly far off. Nevertheless, it is evident that an extra dollar does not provide a millionnaire with a pleasure at all comparable to that which it procures for a beggar.

there is competition among wants of the *same sort*, among wants that are interchangeable; but there is harmony among wants of *different kinds*. The want of food is allied, in civilized societies, with the want of tables, chairs, table-cloths, napkins, glassware, knives, and forks. In order to obtain a maximum of enjoyment, many pleasures must be combined, and thus give rise simultaneously to large groups of wants.

(*5*) Wants, even acquired or artificial wants, tend to become a matter of *habit*. They become, as the popular expression aptly puts it, our "second nature." This, as we shall see, is of great importance in the determination of wages. The customary plane of existence — the *standard of living* — cannot easily be lowered. There was a time when workmen wore neither shirts nor shoes, when they had neither coffee nor tobacco, when they ate neither meat nor white bread; but to-day these wants are so deep-seated, they form so fundamental a part of our nature, that a workman, if he were deprived of them and suddenly reduced to the condition of his social equals in the time of good King Henry, would probably perish.

If we add, finally, that a habit which has been transmitted from generation to generation tends in time to become established through *heredity*, and that our senses are every day becoming more subtle and more exacting, we shall understand the despotic power that may eventually be acquired by a want that originally seemed to be futile or insignificant.

It must not be supposed, however, that wants once acquired are perpetual. There is, as we have said, a competition or rivalry among some wants. Some of them are vanquished and disappear. The show-cases of our museums are filled with objects that at one time satisfied a real want, but which now correspond to no human desire save that of the collector of curios. But wants perish only when they are supplanted by others that are more strongly felt or whose satisfaction affords greater enjoyment.

VII. What is Wealth?

We have said that man, in order to satisfy his wants, is obliged to make use of parts of the outer world, — of objects generally known as *wealth* or *riches*. In ordinary speech the word "wealth" is synonymous with the word "fortune" and means extensive valuable possessions. It seems strange, therefore, to apply the term "wealth" to a loaf of bread. Yet this is perfectly correct and scientific, if we mean by "wealth" all that can satisfy human wants. The capacity for satisfying human wants is called "utility." Accordingly, to avoid confusion, the term "utilities" would perhaps be better than the term "wealth."

The utility of a thing presupposes the discovery of a relation between its physical properties and some human want. Thus, bread is useful because we require nutrition and because wheat contains nutritive elements. Again, diamonds are much desired because it is the nature of man to take pleasure in the contemplation of brilliant objects, and because diamonds have a refractory power superior to that of any other known body and productive of brilliant rays of light.

Thus utility depends, first, on a want felt by man, and, secondly, on an object capable of satisfying that want. Of these two features of utility, man, not the object, is the more important. One might be disposed to believe the contrary, viz., that the anticipated satisfaction consists in properties of things, that the utility of gold is of the same nature as its weight or its lustre or its inoxidizability, — in other words, that utility attaches to the objects themselves, like a quality which appeals to the senses. This is not so. Utility arises only with desire and vanishes with the extinction of desire. As a shadow follows a butterfly from one flower to another, so utility accompanies desire, and abides only where desire rests. It is *subjective*, not *objective*. It matters little that an object has qualities that may satisfy the wants of man, if man is not aware of the fact, or if, because of insufficient power, he is unable to utilize the object. In both cases the object in question is not a utility, and therefore is not wealth. Potatoes were not wealth until Parmentier, with great difficulty, propagated their use as food. The falls of Niagara did not represent economic wealth until we learned how to utilize their motive power. Every object in the world might be useful to man and capable of increasing wealth. But at present some objects are as little entitled to be called "wealth" as the fertile lands or precious stones which astronomers discover on the planet Mars.

Contrariwise, it matters little that an object has received from nature none of the properties adapting it to the satisfaction of our wants if only we *think* that it possesses them. For hundreds of years men have attributed wonderful properties to various relics, more or less authentic, which have therefore been regarded as incomparable wealth. There are many mineral waters and patent medicines that command high prices, although their curative powers are exceedingly doubtful. How many things there are whose value and whose utility is due to a passing whim or fancy! There are many costumes that are no longer worn, paintings that are no longer admired, coins that have no purchasing value, and remedies that do not cure. The list would be long if it were to include all kinds of wealth whose utility was as flitting as the want that gave rise to them. Nevertheless, if the desire of the collector of relics (perhaps the most intense of all desires) should happen to fix on one of these kinds of dead wealth, these worthless objects would acquire a new lease of life and might possess a value greater than that which was originally attributed to them.

In the opinion of scientists alcoholic drinks do not possess any of the good qualities sometimes attributed to them; they furnish neither strength nor warmth. But what does this matter from the view-point of the economist? Millions of men in all countries unfortunately believe them to possess certain desirable qualities; they therefore constitute wealth, — wealth that is estimated at many millions and by means of which many governments obtain a large part of the public revenues.

Hence we must define wealth as *all that mankind believes to be useful and can utilize.*[1]

It is unfortunate for a science to borrow its terminology from everyday speech. It is plain, for example, that in political economy the word "utility" has an unusual meaning. For this reason it has been proposed to substitute some newly coined word. In the first edition of this book (published in 1883) we proposed, and have since then employed, the word "desirability." This word has the twofold advantage of placing the emphasis on the subjective side of economic utility, and avoiding all reference to the real or imaginary, moral or immoral, causes that may give rise to desire. In his "Course of Political Economy," published in 1896, Professor Vilifredo Pareto suggested, and has since then employed, the word "ophelimity," which possesses the same advantages but has the inconvenience of being intelligible only to those who are familiar with Greek. But neither of these terms has been generally accepted in the language of economics. We must, therefore, be satisfied with the word "utility," giving it the particular meaning that we have attached to it.

Another confusion due to the same cause is the belief that since utility is a property of things it can be possessed only by matter; that, consequently, all wealth is material. Many economists, even to-day, declare that the term "wealth" implies material goods, — for wealth is that which can be weighed, measured, and accumulated.

This mistake could never have arisen if, instead of the term "wealth," we had used the term "utility"; for it is evident that *acts* may be useful quite as well as *things*. How great is the utility of the services rendered by our fellow-men! Although the expression has an unpleasant sound, is it not true that we "make use" of our friends, of our employers, of our subordinates, as well as of things? It may be objected that our fellow-creatures cannot be counted and evaluated in the same way as material wealth, unless they are slaves, *i.e.* unless they have become *things*. In reply to this, it must be said that persons are of course not things and cannot be regarded as wealth. But their acts and their labors, — the prescription written by a physician, the lesson given by a teacher, the advice of a lawyer, the performance of an actor, the playing of a musician, the service of our domestics, — why should not these be regarded as wealth? Are not all of these acts useful? Are they not all paid for?

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[1] This is the reason why M. Tarde regards *faith* and *invention* as the sources of all wealth: faith, because it is necessary that we believe in the usefulness of the object; invention, because it is necessary that we be able to use it.

After all, this problem is, in the main, a simple question of terminology. It is an easy matter to bring all the disputants to an agreement, without doing violence to every-day language, by reserving the word "wealth" for corporeal *objects*, and by designating as "services" all the *acts* of man that are capable of furnishing enjoyment or utility.

VIII. What is Value?

In ordinary speech the words "value" and "wealth" (or "riches") are synonymous. Both involve the idea of utility. A thing that serves no purpose cannot be wealth or value. But if we look into the matter more closely we shall see that these two words do not express quite the same idea, and that sometimes they may imply even contrary ideas.

The idea of wealth is allied to that of *abundance;* to have too much of everything would be the acme of wealth. The idea of value, on the other hand, is most closely allied with that of *scarcity;* the objects that are most scarce, other things being equal, possess the greatest value.

Suppose that the magic wand of some fairy, or simply the unlimited progress of science and industry, had made all objects as abundant as the water of the rivers or the sand of the seashore; men then would only need to help themselves to as much as they required of all things. Would not this be the maximum of wealth? And yet, is it not evident that on this hypothesis all things, because of their superabundance, would have lost all value? In fact, they would then have no more value for an individual than the water or sand to which we have compared them. Is it not plain, moreover, that in such a fairyland as this all men would be equally wealthy, just as to-day the sun shines equally on the millionnaire and the beggar?[1]

The idea of value, at least in the ordinary acceptance of the term "money value," implies the thought of exchange, while the idea of wealth implies nothing of the kind. This distinction is a consequence of the preceding one, for the possibility of exchange involves scarcity. There is no market and no purchaser for things that are everywhere abundant, — for water, air, or even for land in newly settled countries. Yet these things are wealth, but have no value. There are also goods which, although scarce, cannot be exchanged, because they are by their nature not transferable. Health, for example, which would certainly possess great value if it could be purchased, or a fine system of navigable rivers, represents great wealth but not value.

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[1] J. B. Say regarded this problem as the knottiest in political economy, and expressed it in these terms, "Since wealth is composed of the value of things possessed, how can a nation be wealthiest when things are at the lowest price?" And Proudhon, in his "Economic Contradictions," defied any thoughtful economist to answer the question. The supposed difficulty is due to the fact that the first clause of Say's phrase contains a false definition. It is not true that "wealth is composed of values." But the second clause is correct, — a nation is "wealthiest when things are at the lowest price," because here the word "wealth" or "riches" is taken in its true sense, viz., abundance.

Madame de Sévigné, who cared little for economics, understood this perfectly well when she wrote from her castle of Grignan, in 1673: "All our barns are full of wheat, and I haven't a cent. Surrounded by wheat, I am suffering want." She meant to say that the harvest had been a *rich* one, but that it nevertheless possessed *little value*.

Robinson Crusoe had certainly accumulated great wealth on his lonely island; but it was not value until the arrival of the first vessel brought him into relations with the rest of mankind and made it possible to exchange this wealth. It is for this reason that the problem of value usually forms part of the study of exchange, and we shall here simply define it.

But the most essential characteristic of value is the idea of a relation *between two things*, or rather (as the things themselves are of secondary importance), a relation between two desires or two wants. In other words, value implies not only a desire — which might be conceived as existing alone — but the preference given to one thing over another, *i.e.* a *comparison* of desires. Value cannot be conceived without a weighing of two things, or a comparison between them.

Wealth and utility may exist of themselves, like the wants which they supply. When we say that a thing — a gun or a horse — *is useful*, we make a statement that is perfectly clear and intelligible. But if we say that a gun or a horse *is worth*, such a statement is incomplete and meaningless unless we add *how much* it is worth. We must add that it is worth so much money, or, if we are living among savages, so many pieces of calico, or so many elephant tusks; that is to say, we must compare it to some other kind of wealth.

Value, like weight or size, is therefore a *relative* notion. If there were only one object in the universe, it could not be called large or small, light or heavy; nor could we say that it had much or little value. When we say that an object has "great value" the element of comparison, although not expressed, is understood. We mean that it has great value expressed in money, in which case we compare it to pieces of coin; or else we mean that it occupies a high rank among riches, in which case we compare it to all other wealth considered collectively. Similarly, when we say, without any comparison, that platinum is very heavy, we really mean either that it has a high specific gravity compared to water (the standard of comparison) or that it occupies a comparatively high place in a list of elements arranged according to weight.[1]

This matter is worth investigating. Why do we attach value to an object? A little reflection shows that there are two different, and, in a way, opposite answers to this question. We may value things because of the *pleasure* they give us; or, we may value them because of the effort, the trouble or the *pain* involved in their acquisition. These are, as a matter of fact, the two ideas which underlie the concept of value, and which we hold to be true and inseparable. Economists have usually placed all the emphasis on one of these two ideas, and minimized the significance of the other. The innumerable theories of value that have been offered may be classified under these leading ideas; the element of *pleasure* is foremost in those theories which found value on *utility*, while the element of *pain* is emphasized by the theories based on ***cost or labor***.

We shall explain each of them briefly.

SECTION 1. UTILITY

Utility, the quality which some things have of satisfying our wants, is, as we have seen, the characteristic of wealth. It would seem natural, therefore, to regard it as the cause of value. This was indeed the explanation given by the first economists — the physiocrats, Condillac and J. B. Say.

When two objects satisfy the same want, this explanation of value is satisfactory. The degree of value in such a case seems to correspond exactly to the degree of utility. Of two fruits we prefer the more savory; of two sheep the fatter; of two houses the more comfortable; of two farms the more fertile; and if the two objects, for instance two bushels of wheat, provide the same amount of gratification, they have as a rule the same value. But if we consider objects satisfying different wants, — for instance a loaf of bread and a hat — this theory fails to tell which is the more useful. It fails therefore to explain value.

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[1] It follows that we ought never to speak of a rise or fall of *all values*. For if value is nothing more than an order, a classification, or a hierarchy established among articles of wealth, how is it conceivable that all values can rise or fall simultaneously? Those that rise in the scale must take the place of others which therefore fall.

It may be suggested that we should classify our wants according to reason, or ethics, or hygiene, just as the seven prismatic colors are classed according to the amplitude of their vibrations. Shall we then put at the head of the list those objects that satisfy the most essential wants, and, among these, place first those that best satisfy our essential wants? If we do this, we shall have a long list of objects possessing value, each occupying the place to which its relative utility entitles it. A glance at such a list would show that the value of a commodity is not directly proportionate, but often inversely proportionate, to its rational utility. What, on the other hand, are the things that would occupy a *low* place in a list *arranged according to values?* Wheat, coal, iron, water, — just the objects that satisfy the most fundamental and essential human wants. The goods that would stand highest in this list of *values* would be gold, diamonds, lace, perhaps a broken piece of porcelain coming from a collection, or a rare edition of an old volume that no one has read or ever will read, — all objects that serve only to satisfy our curiosity or to please our vanity.

Nor can it be objected that this condition of things is due to man's foolishness, — that if men were wise the order of values would be identical with the order of rational utilities. It is not our province to investigate what goods man *ought* to prefer; the theory of value should explain *that which is*, not *that which ought to be.* The above objection, moreover, is not valid. Even if the earth were inhabited only by wise men, a glass of water would not be worth a cent more than it is now, although nothing is better adapted to the satisfaction of a fundamental human want. We must not forget what we have already said: that the value of any object varies constantly according to circumstances. It would therefore be manifestly absurd to say that the value of a commodity is determined by its utility. For there are many utilities, many uses for one and the same thing, and we must consequently ask, if utility determines value,—What utility? The utility of a given object is not the same for A as for B. Again, an object may possess a degree of utility in the evening which it did not have in the morning.

To escape this difficulty, an attempt has been made to supplement the notion of utility by that of scarcity. Utility alone cannot create value; it remains, so to speak, latent unless it is combined with the quality of scarcity. Value is in this sense *scarce-utility*, as expounded by Walras (the elder) in France, and Senior in England. This modification of the preceding explanation enables us to solve many of the difficulties that troubled us. The idea of scarcity alone, however, is insufficient, unless we make it include much that the word does not really contain. For example, strawberries at the end of the season are as scarce as at the beginning, but they have less value because they are less desired. This explanation, moreover, does not satisfy the mind; for at first it is difficult to understand the close relation between these two elements that seem to have nothing in common: utility and scarcity.

A more recent school claims the merit of having discovered the logical tie that binds these two ideas. It shows that they are related and may be reconciled by means of the so-called theory of *final utility*. We shall explain later the meaning of this expression. This school of economists has returned to the idea of utility. Only, it has demonstrated that scarcity, *i.e.* limitation in quantity, far from being independent of utility, and artificially grafted upon it by economic theory, is really inseparable from it. As mathematicians say, each is a "function" of the other; each has the same basis, namely, the fact that wants are *limited in intensity.* This they prove by the following demonstration: —

When we raise the old objection to the utility theory that water is very useful and yet has no value, what do we mean? If we refer to all the water in existence, it is absolutely false to maintain that it has no value; it would possess a great value if it were in any one's possession and were put on sale. If we refer to the water that happens to be contained in a particular glass or pail, we cannot say absolutely that it is useless or useful, for that depends on circumstances.

Let us suppose, for example, that the quantity of water at my disposal is contained in seven pails. The first of these pails I shall use to still my thirst, and it is therefore very useful. The second pail is also useful, although less so, because I intend to use it for cooking. The third is still less useful, for it serves only for washing. The fourth is for my horse, the fifth to water my flowers, and the sixth to wash the floor of my kitchen. The seventh pail is of no use whatever; consequently, I make no effort to obtain it. If some one should insist on bringing me ten, twenty, or even a hundred pails of water, these additional pails would be a positive nuisance. Can we now say that *a pail of water* is useful or that it is useless? These pails of water represent a long series of varying utilities, ranging from infinity to zero, and falling even below zero. Yet every one knows that these pails all have the *same value.* This value is determined by the utility of one of them. The question that now arises is: *Which* one determines the value of the others? The first? Or the second? No, the last; because the privation only of the *last pail needed* can affect me at all. If there are a hundred pails at my disposal, and six pails are all I can possibly use, I do not care a whit for what becomes of the other ninety-four. But if I have only six pails and my reservoir will furnish no more, each of the six pails has a certain value. This value, to be sure, cannot be greater than that of the sixth pail, because only my inability to use this pail will cause me any anxiety. If the *first* pail should by an accident be overturned, should I loudly lament its loss and feel bound to die of thirst? Of course that would be absurd. It is evident that I should not go without drinking-water, but I should be obliged to use one of the other pails in place of the missing one. Now which pail should I sacrifice for this purpose? Evidently, the one which is least useful to me, — the sixth. This is why the sixth pail determines the value of the others.

Suppose now that my supply of water is abundant enough to furnish ten or even twenty pails of water. It is then clear that for some of these pails I shall have absolutely no need, and their utility for me is zero. At the same time, this circumstance reduces the value of all the other pails to zero, and this is precisely the actual condition of things as regards water in most countries. This fact also explains why, according to this theory, value is determined by *final utility* or *marginal utility*, *i.e.* the *intensity of the last want satisfied.*[1]

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[1] This theory may be summarized as follows: —

Value is determined by subjective utility, which is not the utility of a thing in general but its utility for him who possesses it. This utility is not the same for each unit possessed, but decreases as the number of units possessed increases. The utility of the last unit possessed, *i.e.* the *least useful*, determines and limits the utility of all the other units.

Final utility must be distinguished from *total utility*. The latter consists of the sum of utilities of all the pails of water, *i.e.* of the total of a series of decreasing quantities; it is therefore always much greater than the final utility. This circumstance explains why the total utility of water is enormous although the (final) utility of a pail of water is small.

The foregoing is true only of water for household purposes. If water is used for irrigation or for motive power, it acquires a value — and a considerable one — because for such purposes as this it does not exist in sufficient quantity to satisfy the needs of all; and in this event the thousandth pail or the ten-thousandth pail would still have a (final) utility and confer a value on the whole quantity.

In his excellent book, now unfortunately forgotten, on "Le Commerce et le Gouvernement," the philosopher Condillac foreshadowed this explanation of value and in this respect was more advanced than his contemporaries, the

This theory is evidently founded on the law that we have already stated, viz., that the wants of man are limited in intensity. It is admirable as a correct and delicate psychological analysis of human desires; but in basing value on a single principle it does not appear to have succeeded any better than preceding theories. What the theory designates as final utility is nothing else than what we have called the *degree of desirability*, *i.e.* the sum of those elements that constitute economic desire.[1]

Among these elements there is especially one that cannot be brought into the formulæ of this theory, viz., limitation of the quantity. This point is, to be sure, implied in the theory by regarding the final utility — in mathematical language — as a "function" of the quantity. But in this event we must admit that the "quantity" is in turn determined by other causes more fundamental. If we lived in a world where production

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physiocrats: "The value of things grows by scarcity, and diminishes by abundance. Abundance may reduce it to zero. A superabundance of goods is always valueless when we cannot make use of the surplus, for then it is entirely useless." Franklin put this even more tersely, "When the well is dry we know the value of water."

[1] The celebrated theory of final utility outlined above owes its wide acceptance primarily to the works of three economists who published it almost simultaneously about thirty years ago: Professor Jevons in England, Walras in Switzerland, and Karl Menger in Austria. Jevons outlined the doctrine in his "Theory of Political Economy," published in 1871, and at almost the same time the same doctrine was expounded in French and German by the other two authors. There is no reason to believe that any one of these three scientists knew anything of the others' work. Each of them regarded his exposition of the theory as the first and only one. A few years later, however, it was discovered that an obscure German author named Gossen had in 1854 formulated the same doctrine of marginal utility. Still later it was maintained that the French economist and engineer Dupuit developed the same theory in 1844. The honor of its invention has recently been restored to the Germans in an essay by C. W. A. Veditz on "Thuenen's Wertlehre" (Halle, 1896), in which the author shows that the final utility theory was clearly foreshadowed, if not explicitly stated, by the German economist von Thuenen, who wrote in 1826. In the United States the principal protagonists of this theory are Professor J. B. Clark and Professor S. N. Patten. Its principal advocates abroad are Boehm-Bawerk and Wieser.

did not exist; if, for instance, all the objects that serve our wants fell from heaven like the manna of the Jews, then the supply of goods would be a fixed and unchangeable quantity in the problem of value. But this is not true. Supply is alterable, and therefore of only relative importance. There is not a thing in the world, even among the products of nature, and certainly not among the products of human industry, the supply of which is so rigorously fixed that we cannot increase it by additional effort. When we say that diamonds are rare we do not mean that nature has put a specific number of them into commerce and then destroyed the means of their production; we simply mean that it requires much effort or great good fortune to find them, and that consequently the number of diamonds can be increased only with difficulty. When we say that chronometers are rare we do not mean that there is in the world only a fixed number of them; for we might produce almost any number. But as the manufacture of a good chronometer requires considerable time and a special kind of craftsmanship, the quantity is limited by the available time and labor. It would be unsafe, even, to affirm that the number of paintings by Raphael is absolutely fixed; for it is not impossible that some day we may discover, hidden away in some old attic or church, hitherto unknown works of this artist.

In forming a concept of value, therefore, we cannot neglect to consider the means of increasing the quantity of a given kind of wealth. There are even cases when the mere *possibility* of voluntarily increasing the quantity is sufficient to diminish desire and reduce value. Such a case would be, for example, the discovery of a method for crystallizing carbon to produce diamonds; even before the industrial application of this method the value of diamonds would fall.

Finally, this theory, which explains facts very well when we have to do with isolated man (like Robinson Crusoe), does not explain them when we enter the real world of exchange, except by means of complicated abstractions. Indeed, as values are entirely subjective, a given object has as many values as there are buyers and sellers in the market. We must therefore still ask: How is a uniform market price evolved from this great variety of values? (See Book III, the section on Exchange Value.)

SECTION 2. LABOR

The second theory is in a manner the inverse of the first. While the first clings to the idea of the *gratification* afforded by goods, the second emphasizes that of the *effort* made to get them. It occupies an important place in the science of economics. First developed by Adam Smith, vigorously expounded by Ricardo, it has been accepted by economists belonging to many different schools — from the optimists like Bastiat to the socialists like Karl Marx.[1]

Of course this theory does not deny that utility, *i.e.* the power to satisfy want or desire, is the fundamental condition, the *sine qua non* of value. It would indeed be foolish to suppose that a useless thing can have any value, whatever may be the labor that it has cost. But, according to this school, although utility is the condition of value, it is not the cause of value. The basis of value, it is claimed by this school, is human labor; and things are worth more or less according to the amount of labor required to produce them.

This theory seems to possess two advantages over the preceding one: (1) That of being more scientific, because it gives as the basis of value a precise quantitative notion,—something that can be measured. To say that a certain watch has twice the value of another because it represents twice as much labor, satisfies our mind; the explanation seems to be valid; at all events we can verify it if we choose. But to say that it is worth twice as much because it is twice as much desired, does not sound clear and convincing; for what do we know about it, and how can we tell? (2) It also satisfies better the idea of justice, because it gives as the basis of value a human element,—labor. This is one reason why the theory has attracted so many generous-minded men. If we could succeed in showing that the value of all things that have become some one's property, beginning with the soil itself, is directly proportionate to the labor that they have cost, it would not necessarily follow that the wealth belonging to each person is equivalent to the product of *his labor*[1] (for he may have appropriated value created by the labor of others), but the problem of attributing to each person a value equal to the product of his labor would at least be very much simplified; it would, upon such a theory as this, be easier to found our social organization on a principle of justice.

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[1] "It is natural," says Adam Smith, "that what is usually the produce of two days' or two hours' labor should be worth double what is usually the produce of one day's or one hour's labor." — "Wealth of Nations," Book I, Chapter VI.

Ricardo speaks of labor "as being the foundation of all value, and the relative quantity of labor as almost exclusively determining the relative value of commodities." — Chapter I, Section 2, "Principles of Political Economy and Taxation."

"The value of a commodity is determined by the quantity of labor expended during its production." — KARL MARX, "Capital," Chapter I.

Despite this apparent identity in the thought of these three writers regarding value, their explanations of it are at bottom quite different. But we cannot here discuss this difference.

We wish, therefore, that this theory could in truth be regarded as the expression of existing conditions. Unfortunately, the explanation is unsatisfactory, for the following reasons: —

(1) If the cause or essence of the value of a thing consisted in the labor requisite for its production, then value would necessarily be unchangeable, for as Bastiat himself

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[1] The optimistic school of economists actually affirms that wealth is proportionate to labor, and endeavors to show that except for those perturbations, exploitations, and thefts that occur even in the most civilized societies, the sum of values in any person's possession is the fruit of his labor and saving, or of his ancestors' labor and saving.

The socialists, particularly Karl Marx, claim that all wealth, all capital, is the result of a deduction from the product of the labor of others.

admitted, "past labor is not susceptible of a *more* or *less*.' But every one knows that the value of objects varies constantly. It is evident that these variations are absolutely independent of the work of production. Besides, it is *a priori* absurd to think that the value of a commodity may thus depend on a fact that is irrevocably past. The labor put into an object is a matter of the past, and cannot now be changed. "What's done, is done."

To this, of course, the reply may be made that we should consider not past labor but present labor, — not the amount of labor especially devoted to the particular object that we have in mind, but the generic labor necessary under existing social conditions to produce an object like it.[1] This may be well and true, but there remain other objections more difficult to remove.

(2). If labor were the cause of value, equal labors would always correspond to equal values, and unequal values to unequal labor. But we constantly see objects that have cost

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[1] The American economist, Henry C. Carey, maintained that the cost of "reproduction" determines value. He meant that the actual amount of labor expended in making a chair, for example, does not determine its value, but the amount of labor that would now be required to make another chair just like it, *i.e.* the cost of again producing such a chair.

Karl Marx declared that we need not care for the individual labor which may have been employed in producing a given object, but for the *social labor* requisite for the production of that object, measured by the number of hours necessary, on the average, to produce it.

Bastiat, to solve the same difficulty, says that we must consider, not the labor performed by him who produced the object, but only the *labor saved* to him who seeks to possess it. And as helping some one to avoid labor is, according to Bastiat, to "render him a service," this author defines value as "the relation between two services exchanged," and declares that the cause and measure of value is the *service rendered*. This idea, by which social relations are regarded as an exchange of services, is both very ingenious and very modern, but as an explanation of value it amounts to mere tautology. To the question, Why is a diamond more valuable than a pebble? it replies, Because in giving me a diamond you render me a greater service than in giving me a pebble. No one would gainsay so puerile a proposition; but it is sufficient to reply that if the service rendered by the transfer of a diamond is greater than that rendered by giving up a pebble, this is simply because the same amount of labor selling at different prices: for example, two pieces of meat from different parts of the same cow. On the other hand, objects which have cost different amounts of labor are sold at the same price: for example, a bushel of wheat from land that produces ten bushels an acre, and a bushel of the same quality from land that produces thirty an acre.

The phenomenon known to political economists by the name of *rent* is nothing else than the excess of the selling price of an article over its cost of production, *i.e.* its cost in labor. Now rent exists everywhere, more or less.[1]

(3) If labor were the cause of value, value would be absent where labor is absent. But there are innumerable things that have a value of their own without the intervention of labor, *e.g.* springs of mineral water or of petroleum, guano deposited by sea-fowl, sandy beaches that are particularly valuable for planting vineyards, building lots on the prominent streets of large cities, etc.[2] There are also things that acquire an increased value without the addition of any labor, *e.g.* wine that has been stored in wine-cellars.

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the diamond has more value than the pebble. Thus we have reasoned in a circle. As a matter of fact, it is not the service rendered by him who yields an object, that determines its value, but, on the contrary, it is the value of the object yielded, that determines and measures the service rendered.

It should be noted that to the very extent that these amendments correct the fundamental "labor" theory, they also deprive it of the merit of satisfying our ideal of justice. The theory of value and our ideal of justice would be in perfect harmony if we could prove that the value of any object in a person's possession is proportionate to the trouble that was required of its possessor to produce it. But this harmony no longer exists if we limit ourselves, like Bastiat, to proving that value is simply proportionate to the trouble *saved* (i.e. *not incurred*), or if, like Karl Marx, we measure value by *average labor* (which is independent of individual labor).

[1] Ricardo did not deny rent. It was he who discovered it for land. The explanation he gives of it serves but to emphasize the fact that two objects of the same quality, *i.e.* the same utility, have necessarily the same value however unequal may be the labor they have cost.

[2] Ricardo did not deny the indubitable fact that there are objects "whose value depends only on scarcity, because no labor can increase their quantity."

(4) Finally, and above all, if labor is the cause of value, what is then the cause of the *value of labor itself?* For labor has an incontestable value; it is bought and sold, or rather, it is hired every day at a certain price. It is easy to explain the value of labor by the value of its product, just as the value of a farm is determined by the value of its crops. But if in turn we pretend to explain the value of a product by the value of the labor which produced it, we are reasoning in a circle.

The above theories are the two important explanations of economic value. We must choose between them, — unless we care to adopt them both. Indeed, I believe that this is just what we are obliged to do, not for the sake of eclecticism, but because we thus approach nearer to the truth. The human mind is naturally disposed to seek a single cause for the phenomena under study; but is it not reasonable to suppose that value has two sides, two poles as it were, each of which contains a part of the truth — utility as well as labor, pleasure as well as pain?

Let us ask ourselves these questions: — Why do we attribute a certain *value* to a given object? Why do we *want* a given object? A little reflection will suffice to show that two different, and in a sense opposite, answers may be given to these questions. We may place a value upon things because they afford us *pleasure*, or we may do so because they have cost us some expenditure of *effort* or *pains*. Even an isolated man like Robinson Crusoe certainly did not classify the objects he possessed solely according to the satisfaction he anticipated from their possession. He had also another criterion of value, viz., the difficulty he would encounter in replacing these objects. Probably the utility of his watch

But he considered them insignificant exceptions to the rule, and gave as typical examples: valuable paintings and statues. The objects, however, which have a scarcity-value constitute a class of exceptions that is more important than the rule.

was small, for as he lived alone and had no engagements to fulfil he needed it little; but as he knew that it would be impossible for him to replace it, he doubtless attributed a greater value to it than it would otherwise have possessed. There is consequently all the more reason why we, who are living in a society and who are interested in values principally for purposes of exchange, cannot ignore this matter of pain or cost. As sellers we must think of the difficulty of replacing the object that we relinquish. As purchasers we are concerned with the difficulty of procuring the object that we want.[1]

In summarizing our answer to the question, What is the cause of value? we cannot assign one exclusive cause, for there are more than one; but we may say: —

Things have more or less value according to the intensity of our desire for them.

The intensity of our desire for things varies according to the insufficiency of their quantity for the satisfaction of our wants.

The quantity of things is more or less insufficient, according to the difficulty we experience in increasing it.

IX. What is Price?

To obtain a definite idea of the size, the weight, or the value of things, it is not sufficient to compare them with one another. A *common measure* is necessary. For measuring *lengths* the term of comparison was originally a part of the body (foot, ell, etc.), and is now, according to the "metric system" introduced first in France, a part of the earth's circumference (the meter, kilometer, etc.). For measuring *weights* the term of comparison chosen in the metric system is the weight of a fixed volume of distilled water. The old or original English pound was derived from the weight of 7680 grains of wheat, all taken from the middle of the ears and well dried; hence "grains" form the lowest fractional parts of a pound. The standard British pound at present is a piece of platinum preserved in the office of the Exchequer, at the temperature of 62° Fahr. A number of authorized copies of it have been made and deposited at several institutions. The yard, as the standard English measure of length, is the distance between two marks on a metal rod imbedded in the masonry of the Houses of Parliament.

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[1] Professor Marshall declares that value is determined both by the final utility and by the cost of production; value "maintains an equilibrium between these two opposite forces, like the keystone of an arch."

Ruskin says that value is the product of two factors, one of which is labor, x, and the other the demand, y. Whence, if x or y equals 0, then the value, xy, also equals 0. ("Unto This Last.")

A common measure enables us to compare *two things in different places* (which cannot be brought together for direct comparison), or to compare *the same thing at different times* in order to ascertain what changes have taken place in it. By means of the yard-measure we can compare the stature of the Lapps with that of the Patagonians, and tell exactly how much taller the former are than the latter. The same standard of comparison, if it has not been entirely forgotten, in a thousand years will enable our descendants to compare themselves with the man of to-day and ascertain whether or not mankind has decreased in stature.

In order to measure *value* it is not sufficient for us to compare two values one with another (as is done in barter), but we must take the value of some definite object as a basis of comparison. But which object shall we choose? Each nation and every period seems to have had its own measure of value. Homer declared that the armor of Diomedes was worth a hundred oxen. Until a few years ago, a Japanese would have said that it was worth so many hundredweight of rice. An African negro would have put its value in yards of colored calico, and a Canadian trapper would have expressed it in fox-skins or otter-skins. It is, nevertheless, a remarkable fact that almost all civilized people have agreed in choosing as their measure of values, as their standard, the value of the precious metals, gold, silver, and copper, but especially the first two. They all use a little ingot of gold or silver, called a dollar, or pound, or franc, or rouble. To measure the value of any object, they compare it with the value of that small weight of gold or silver that serves as the monetary unit; that is to say, they try to find how many of these bits of metal must be given up for the commodity in question. If, for instance, ten are needed, they say that the commodity is worth ten dollars, or ten pounds, etc. That is its *price.*

The price of a thing is, therefore, the expression of the relation between the value of the thing and the value of a certain weight of gold or silver; or, to put it more briefly, it is its *value expressed in money.* As in all civilized countries money is the sole customary measure of values; the term "price" has come to be synonymous with "value."

Why have the precious metals been chosen as the common measure of values? Because they possess two properties that enable them to fulfil this function admirably, or, at all events, better than any other known object. These two properties are: (1) Great value in small bulk, which makes them very *easily transportable;* (2) A degree of chemical unchangeableness that guarantees almost unlimited *durability.* By virtue of the first of these properties the value of precious metals is of all values that which varies least from one place to another. By virtue of the second quality the value of these metals varies least from one year to another. This double invariability, relatively speaking, in time and in space, is the essential condition of every good measure. Yet we shall see (in the section on Money) that when we take long periods of time into consideration — not centuries, but even generations — this chosen measure is found to be very defective. Can we find a better one? Several have been proposed, the principal one being *wheat.* This seems a most astounding choice; for if we consider the value of this commodity in different places or at different times we find that there are few goods whose variations in value are more marked. At a given time a bushel of wheat may sell for $2 in France, $1 in London, and 50 cents in one of our western states; and from year to year the value of crops varies greatly, according as they are good or bad.

To this the reply is made that though the value of wheat is incomparably more variable than that of the precious metals when only short spaces of time are considered, yet it is far more stable when longer periods are observed. Wheat satisfies a physiological need that is permanent and varies little. No other commodity (at least in civilized societies) possesses to the same degree the double characteristic of being almost indispensable up to a certain limit, determined by the quantity necessary to nourish a person, and of being almost entirely useless beyond this limit, — since no one cares to consume more than his hunger demands. Hence, despite the sudden and wide oscillations in its production, the law of demand and supply tends always to restore its value to a level determined by physiological need; it does this, moreover, with greater effectiveness whenever production has temporarily deviated from its proper level.

It must be acknowledged that wheat does offer, so far as variations in value are concerned, virtues and defects that are precisely the opposite of those which mark the precious metals. For this reason it has often been used by statisticians as a good basis on which to estimate the cost of living at various periods.

A better measure, it appears, would be *labor*. In fact it may be maintained that men will be willing to devote more labor to making a thing when the thing is greatly desired, or, in other words, when they believe it to possess greater value. Just as in exchange we measure the value of a commodity by the sacrifice of some other commodity which some one is disposed to make in order to procure it (for instance, by the amount of money which the purchaser will yield for it): similarly, may we not measure its value by the amount of time and trouble which men will devote to its production? It is in this sense that Adam Smith said, "Labor was the first price, the original purchase-money that was paid for all things." [1]

What we really want to find is a practical and convenient measure. How, then, can we take labor as a measure, since it is never the same for two persons, and varies continually in intensity and in quality?

It has also been suggested to take, as the common measure of value, the *wages* of a workman of the lowest class, — of a manual laborer who earns just enough to live. This measure is proposed on the supposition that the amount necessary to keep a man alive is a fixed, definite quantity. But we need only refer to what has been said concerning the wants of man to be convinced that this supposition is entirely contrary to facts.

Hence we conclude that, for want of something better, we must be satisfied to use gold and silver as the measure of value, and to express prices in money.

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[1] This theory must not be confounded with that of Karl Marx, by which labor is regarded as the cause of value, — a doctrine which we have already rejected. Here we are considering labor not as the cause but as the effect of value, or rather as the effect of desire, since desire gives rise to value. If we admit that labor is an effect of value, nothing would be more scientific than to measure the cause by the effect. We measure weight by the pendulum much better than with scales, for scales permit us only to *compare* weights — as exchange enables us to compare only values — while the pendulum measures the intensity of weight itself. If we could measure value by labor, we should then be able to tell whether in a few centuries the economic desires of mankind are more or less intense than to-day.

BOOK II. PRODUCTION

PART I. THE FACTORS OF PRODUCTION

THANKS to a tradition dating from the time of the first economists, three agents of production have always been distinguished: *land*, *labor*, and *capital*. This threefold division has the advantage of simplicity, and there seems to be no need to abandon it, — at least not in an elementary book like this.

It requires, however, some correction. Classical political economy has always shown an unfortunate tendency to regard these three factors as equally important. This tendency was doubtless due to a desire to justify the claims of each in the ultimate distribution of products, by attributing *wages* to the laborer, *rent* to the owner of land, and *profit* to the owner of capital. But we must abandon any such effort as unscientific. Here we have to do only with production, and from this point of view it is at once evident that these three factors play unequal parts. Of the three, labor is the only one that can claim to be an agent of production in the exact sense of the word. Only man plays an active part in production; nature is absolutely passive, and merely obeys man, often after long resistance. Nevertheless, whenever we have to do with material wealth, nature is indispensable to production.[1] It may be called, therefore, a factor of production, for it is not only a necessary concomitant of labor, but must exist before labor. The activity of man accomplishes nothing in a vacuum; it does not really create, but must find in the outside world those indispensable materials on which it operates. These materials are furnished by nature. The third factor, capital, also plays a purely passive part, and therefore should not be called a productive agent. It is not even a primary factor of production; it is only a factor of secondary importance. Logically, as well as chronologically, it is derived from the two others. Capital, as we shall explain in detail later, is a product of labor and of nature, set aside for productive purposes. Its right name is "instrument" of production, in the wide sense of the term.[1]

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[1] When we are considering non-material products, or *services* (see p. 48), it is plain that human labor is sufficient, — unless we maintain, with a certain degree of subtilty, that these services can be transmitted only through the medium of natural agents; the song of a singer, the advice of a physician, can, to be sure, reach our ears only by means of sonorous air vibrations.

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[1] The classical economists generally designated as *profits* the share of the capitalist in the distribution of goods. But modern economists have confined this term to the remuneration received by the industrial projector, and have used the term *interest* to designate the share due to capital. It is the industrial projector who directs production by uniting the requisite land, labor, and capital; it is he, moreover, who is directly responsible for the outcome. (See the Chapter on Profits.)

CHAPTER I — LABOR

I. On the Part played by Labor in Production

To accomplish its purposes, and principally to obtain the necessities of existence, every organism must perform work. The seed must work its way through the hardened crust of earth. The oyster, clinging to its bed, opens and closes its shell to draw nourishment from the water. The spider spins its web; the wolf hunts its prey. Nor is man exempt from this universal law; he too has to toil to satisfy his wants. With plants this toil or striving is unconscious; with animals it is instinctive; with man it is a voluntary, conscious act, called *labor*.

But is there not some wealth that man can obtain without work, — wealth that nature lavishly bestows on him? This is a difficult question. First of all it must be observed that there is not a single object among those that are called *products* that does not in some measure presuppose the intervention of labor. The word *product* (*productum*), which means "drawn from somewhere," implies this. But what, except the hand of man, could have performed this drawing or producing? Even the fruits which nature has given man, he must take the trouble to gather. This is labor, and under some circumstances exceedingly arduous labor.

People seldom realize what an important part labor plays even in those products that are often inaccurately termed "natural." They are too ready to believe that everything that grows on the earth is due to the generosity of nature. As a matter of fact, nearly all the plants that supply man with food have been so modified by cultivation and by the labor of hundreds of generations, that botanists can seldom discover their original types. Wheat, maize, and beans have been found nowhere in the wild state. Even such plants as do grow wild are wonderfully different from their cultivated congeners. Between the acid berries of the wild vine and our grapes, between the succulent fruits of our gardens and the bitter or even poisonous wild-fruit, there is a vast difference; so great, indeed, that our fruits may be regarded as artificial products, that is to say, as creations of human industry. A proof of this is the fact that if the constant labor of cultivation be relaxed for a few years, these products speedily degenerate, *i.e.* they revert to a state of nature and lose all those properties with which human industry had endowed them.

It is true, however, that some wealth is not the product of labor, precisely because it is not a *product;* i.e. *it exists before any act of production.* I refer to the soil and all the organic objects or inorganic substances with which it supplies us, — the bubbling spring of water or petroleum, the growing forest, the natural prairie, the stone-quarry, the coal or metal mine, the waterfall that turns the mill-wheel, the guano bed deposited by sea-birds, or the sea teeming with fish.

Yet, to understand the part played by labor even in this "unproduced" wealth, we must bear in mind two points: —

(1) This natural wealth does not exist, as wealth, *i.e.* as useful and valuable objects, until human intelligence has been able, first, to discover its existence, and, secondly, to perceive that it possesses qualities which render it fit to satisfy some of our wants. Take any piece of land, say wheat-growing land in America. Why is this land wealth? Because some explorer or pioneer, following in the footsteps of Columbus, discovered this particular spot. Now discovery, whether of a new world or merely of mushrooms in the forest, always presupposes labor of some kind.

(2) Natural wealth cannot be utilized, *i.e.* cannot be made to serve for the satisfaction of human wants, until it has undergone a certain amount of labor. In the case of virgin

soil, it is necessary to clear it of trees and underbrush. In the case of a mineral spring, it must be made possible to collect and store the water. Even mushrooms and fish must be gathered or caught and then prepared for use by cooking.

II. How Labor Produces

We must distinguish three varieties of labor: —

(1) *Manual labor.* When we consider the infinite variety of products which result from human industry we are likely to suppose that labor is a very complex power which defies all analysis. Yet it is nothing of the sort. Labor is nothing more than muscular energy directed by intelligence. It cannot produce any other effects than those of any motive force — a weak motive force — viz., *a movement or change of place.* This movement may be a displacement of the object itself, or of its component parts. In the latter case we say that there is a change of form — a transformation — but every change of form is really only a displacement. The exquisite shapes assumed by clay under the hand of the potter or the statuary, the rich and ingenious patterns wrought in lace by the fingers of the lace-maker, are only the effects of the arrangement or displacement of molecules of clay or threads of tissue. All that man's labor can do is to stir, separate, connect, insert, superpose, and arrange; all these are only different kinds of motion and transposition. Take the various processes in the production of bread: ploughing, sowing, reaping, winnowing, grinding, sifting, kneading, baking, — these are nothing but movements of matter. Analyze any industry, and no other factor can be found, for this is the only part man plays in the work of production and is the limit of his power. All the profound transformations that take place in the constitution of matter, changes which modify its physical or chemical properties and help in production; the mysterious evolution of a plant from its seed; the fermentation that turns a sugary syrup into alcohol; the chemical

process that transforms carbon and iron into steel; — these are not man's work. All he does is to put the proper materials in the right place, the seed in the ground, the vintage in the vat, the ore in the furnace. Nature does the rest.

When we consider how feeble, relatively, this motive power of man is, and how limited its field of action, we are astounded that it has nevertheless been potent enough to transform the world.

(2) All physical labor, properly so called, must be preceded by purely intellectual labor which we may call *invention*. It is because of discovery and invention that the patrimony of mankind is increased every day by some new conquest. From the soil that makes the mud of our streets we have learned to manufacture aluminum; industry has converted the apparently worthless residue of coal into perfumes or into dyes more splendid than Tyrian purple. Yet the list of things which we know how to utilize is short when compared with the immense number of those that serve no human use. Of the 140,000 known varieties of the vegetable kingdom, we have learned to cultivate and use less than 300. Of the hundreds of thousands of species in the animal kingdom, there are barely 200 that we employ for any purpose whatever. In the inorganic world the proportion is even more unfavorable. But the list of our riches is every day being lengthened, and there is every reason to believe that if our science were perfect there would not be a single blade of grass or a grain of sand for which we had not discovered some use.

Invention does not mean, as might be believed, the rare idea that springs from the mind of a man of genius; it is a requisite of every productive act, even the most humble. There is no movement of the arms or fingers in any productive act that was not invented by some one.

It should be noted that every invention, once made, may serve for an indefinite number of productive acts, or acts of reproduction. It is precisely this possibility which makes it difficult for the law to protect the property rights of inventors.

(3) Finally, it must be remembered that all collective labor (*i.e.* all labor, save when a man works alone and for himself) requires direction or *supervision.* Each laborer in a productive enterprise is not allowed to do as he pleases, independently of each other laborer; he must be told what to do, according to a general plan. This planning or directing is itself a very effective kind of labor, the importance of which increases as production is conducted on an increasingly large scale. Misdirected labor is apt to be valueless; hence the labor of intelligent direction is a value-creating function.

III. The Evolution of Ideas concerning the Productivity of Labor

It is interesting to follow the succession of economic doctrines regarding this problem of the productivity of various kinds of labor. The title of "productive," originally applied to only one kind of labor, has gradually been extended in its application, and is now bestowed on all kinds without exception.

(1) The physiocrats confined the epithet "productive" to *agricultural* labor (including hunting, fishing, and mining, as similar in nature), and denied it to all other labor, even that of manufacturing. The reason assigned for this discrimination was that the above-named pursuits furnish all the materials for wealth, while other occupations simply work up these materials.

(2) The definition of the physiocrats was unquestionably too narrow. The raw product of agriculture and of mining is usually altogether unfit for consumption; it must undergo numerous modifications which are effected by *manufacturing* industries. The latter are the indispensable complement of farming, and without it the process of production is as incomplete as a play with the last act suppressed. Of what use

is the ore at the mouth of the mine, unless it is destined to go to the foundry? Of what use is wheat before it has passed through the hands of the miller and the baker? Without the weaver's labor flax would be as useless as the nettle. How then can we refuse to call these labors productive? Without them all these kinds of wealth would be useless to us; in other words, they would not be wealth at all.

As for the contention that agriculture and mining *create* wealth, and that manufacture or industry in the narrower sense of the term only *transforms* it, we must call this an error. The farmer creates nothing; he too simply transforms the elements that are contained in the soil and air. He makes wheat from water, potassium, silicon, phosphates, and nitrogen, just as the soap-maker manufactures soap from soda and fatty substances.

Therefore, ever since Adam Smith wrote on this subject, no one has hesitated to regard manufacturing as productive labor.

(3) With regard to the labor of *transportation* there has been more hesitation, because transportation seems to make no change whatever in the article transported. Is not a package of goods the same when sent from New York as when it reaches San Francisco? This feature of identity, it was urged, distinguishes transportation from manufacturing.

But the distinction is scarcely philosophical, since every displacement involves an essential modification of bodies. Indeed, it is the only modification that we can make in matter. Besides, if we decide that displacement is not essential enough a modification to entitle it to be called productive, then we cannot call mining productive either. For what distinction is there between the work of the miner, who transports coal from beneath the earth to its surface, and that of the wagoner who takes it away to such places as require it, unless we pretend that displacement is productive only when it takes place vertically, and not so when it takes place horizontally? It is scarcely necessary to add that just as manufacture is the indispensable complement of agriculture and mining, so transportation is the complement of the preceding operations. What would be the use of stripping bark in the Brazilian forests, of extracting guano in the Peruvian islands, of hunting elephants in South Africa for their tusks, if there were no means of taking these products to the places where they are needed? What profits it a farmer to have the finest crop in the world, if there is no way to carry it to the consumers?

(4) With regard to commerce or *trade*, the hesitation has been even longer. It may be said that commerce or trade, reduced to its simplest terms, *i.e.* buying for the purpose of selling, does not imply any creation of wealth. No doubt those who engage in trade may make much money, but this does not augment the general wealth. In fact we shall see that the multiplication of traders and middlemen may become a veritable social scourge, and even involve a loss of wealth for the community.

But we must observe, on the other hand, that commerce cannot very well be separated from transportation. It was at a late period in the history of economic science that these two operations came to be distinguished. Even to-day, merchants are still the real directors of transportation; the carrying industries only execute their bidding. Moreover, they also preserve and store up goods, and sometimes even subject them to slight modifications. The cloth merchant cuts his goods into conveniently-sized pieces; the grocer roasts his coffee. Finally, even when commerce is nothing more than exchange pure and simple, the mere act of transferring a thing to the person who will utilize it must be regarded as productive; for to make useful a thing that was not useful before, is the whole secret of productiveness.

(5) Finally, discussion has been keenest with regard to *services*, such as those rendered by the *liberal professions*. It may seem strange, for instance, to apply the term "productive" to the labor of the judge who gives a decision, or of the sur-

geon who amputates a leg. Where are their "products"? Where is the "wealth" that they have produced?

It is sufficient, however, to note two facts in this connection: (*a*) That production has for its direct object the satisfaction of human wants, and only indirectly the creation of wealth. The fact that an act of man may satisfy the wants of his fellow-men directly, without the intervention of wealth, that is, without the use of any *material* objects, should not rob it of its productive character; (*b*) that in the social organism, thanks to the law of the division of labor which we shall explain later, there is such a solidarity and interdependence in the labors of men that it is not possible to separate them, and immaterial services are an indispensable condition of the production of all material wealth.

Take the production of bread. We need not hesitate about classing as productive the labor of ploughmen, sowers, reapers, wagoners, railroad employees, millers, and bakers, beginning with Triptolemus, the legendary inventor of wheat, and including all his successors who have discovered any of the varieties of cereals or who have invented the rotation of crops or the methods of improved agriculture. But we cannot stop at mere manual labor, strictly speaking. It is clear that the labor of the superintendent or of the landlord, although he may not himself put his hand to the plough, is as important for the production of wheat as the labor of the shepherd in the production of wool, although he may not shear the sheep himself. Nor can we ignore the work of the engineer, who devises the system of irrigation used on the farm, or that of the architects and builders who have constructed the farmhouses and the barns.

Must we stop here? If we do, what is to be said of the labor of the constable who keeps off the tramps, or the county attorney who prosecutes them, or the justice who sentences them, or the soldier who protects the harvest from foreign invaders that are even more dangerous than native thieves? Do they not also contribute to the production of wheat? And what must be said of the work of those who trained the farmer and his employees, the instructor who taught them the first principles of agriculture or the means of acquiring them, and the doctor who keeps them in good health? Is it a matter of indifference, even from the viewpoint of wheat-production, whether or not the laborers are well-instructed and healthy, and that they enjoy the advantages of social order, security, good government, and good laws? Should we disregard, as of no importance in the production of wheat, even such apparently alien labors as those of authors, poets, and artists? May not the taste for farming be developed by novelists who depict the beauties of rustic life, or by poets who celebrate the pleasures of the country, and teach us to repeat, after the author of the "Georgics,"

> Fortunatos nimium sua si bona norint
> Agricolas!

Where, then, should the line be drawn? Productive labor has been extended to the farthest bounds of society, like the concentric circles made by throwing a stone in a pond. Undoubtedly, the various kinds of labor we have enumerated do not contribute in just the same way to the production of wheat; some act directly, others indirectly; but none of them, beginning with the ploughman's toil and reaching to the work of the President, could be suppressed without affecting the raising of wheat.

There is even no necessity for determining which of these labors is most useful economically. According to the order of importance of the wants that they supply, we might be inclined to put at the top of the list the work of discovery and invention, then farming, then manufacturing, transportation, and last of all commerce and public services. But it should immediately be objected that if a country is poorly governed, or if it has no means of transportation, all its agricultural wealth is of no avail. What we need is a proper coördination of these various productive functions and labors. Unfortunately this perfect coördination is far from realized even in civilized societies. Some nations expend millions for the development of means of transportation without first ascertaining whether there will be any products to transport. Again, the number of persons engaged in petty trade or employed in government offices is increasing every day, while agriculture is being more and more abandoned.[1]

IV. Pain as a Factor of Labor

All productive labor involves toil. This is a law of supreme importance in political economy. If labor did not involve unpleasantness, all economic phenomena would be entirely different from what they now are. If men worked only for pleasure, it would no longer be necessary to have private property as a stimulus to toil, and the most serious objection to communism would lose its force. Fourier, the socialist, understood this perfectly. The basis of his scheme of a future society was to make labor *attractive*. He insisted that labor was painful solely because of our defective social organization; he boasted that in his "phalanstery" labor would be made attractive to all persons by having the choice of occupations free, by changing them frequently, by working only a short time, by an appeal to the spirit of emulation, and by a hundred other devices, some of which are ingenious and some fantastic. He proposed to make

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[1] The recent census figures regarding the number of persons engaged in gainful occupations show the following distribution: —

	1870	1880	1890	1900
Agriculture, fisheries, mining	49%	46%	40%	38%
Manufactures	20	20	22	22
Commerce and transportation	10	11	15	16
Liberal professions	3	3	4	4
Personal service	18	20	19	20

This table indicates that the number engaged in the first two groups, which are the only directly productive ones, has fallen from 69 to 60 per cent. in 30 years; while the number of the other three groups, which are unproductive in the old acceptation of the term, has risen from 31 to 40 per cent.

the work of the farmer, the smith, the carpenter, the shoemaker, etc., just so many kinds of sport. There is really nothing absurd about this. Labor is after all only a form of human activity, and activity is not necessarily painful. To act is to live; absolute inaction is a torture, so cruel that when prolonged in solitary confinement it may cause insanity or death. There is no essential difference between labor and a host of exercises that are regarded as pleasures, though they often require a greater expenditure of energy than that involved in labor; for example, mountaineering, boating, gardening, and dancing. King Louis XVI found amusement in making locks. Why should not all men work for the love of it?

The answer is that man finds pleasure in action only in so far as the exercise of this activity is itself a gratification and the performance of a natural function. But when it is viewed as the condition of an ulterior enjoyment, — as the effort which must be made to achieve an aim fixed beforehand (and this is the very essence of labor), — then it becomes disagreeable. Between a man who rows for pleasure and a boatman who rows to earn a living, between a tourist who climbs a mountain and the guide who accompanies him, between a girl who spends her evening at a ball and the dancer who appears in a ballet, I see only one difference — the first rows, climbs, or dances, solely to row, climb, or dance, while the others do so to earn their living. This difference, though a purely subjective one, causes the same kinds of activity to be regarded by the latter as labor and by the former as pleasure. Some men find their pleasure in gardening; but they would find it less agreeable if they were obliged to raise vegetables for sale in the market. The man who follows a road for a walk may take pleasure in this activity even though the road may not be particularly attractive; but the man who must traverse it every morning and every evening to reach his destination always finds it long and wearisome. Now labor is the path that almost all mankind must follow in order to earn a livelihood; hence, in accordance with the old curse in Genesis, "they labor in the sweat of their brow."[1] Doubtless even the humblest labor has its joys, the joys of a duty fulfilled and a natural law voluntarily accepted; but these austere joys are felt only by a chosen few, and we should fall into the most chimerical optimism if we believed that a change of environment and of social organization would some day lead all men to labor solely for pleasure.

In order to induce men to work, and in order to counterbalance the unpleasantness always associated with toil, a motive of some kind is needed. Formerly, when work was done by slaves, the whip, *i.e. constraint*, furnished the incentive. For the altruist of the future, the sense of a social duty voluntarily performed will perhaps be sufficient. But for the man of to-day as a general rule the motive is ***self-interest***. Every man who labors is subjected to the influence of two opposing forces. On the one hand is the desire to procure enjoyment or the means of obtaining enjoyment; on the other is the dislike for work, or rather for the unpleasantness of work. According as one of these desires outweighs the other, man will continue or will abandon his labor.

As Professor Stanley Jevons ingeniously observes, the pain endured by the worker increases with the continuation of labor, while the pleasure derived from the reward of labor constantly diminishes as the more pressing wants are satisfied. Of the two desires, one prompting him to work, the other urging him to stop, it is clear that the latter must triumph eventually. Take a laborer drawing buckets of water from a well. Fatigue increases with each successive bucket he has to draw. The utility, moreover, of each successive bucket decreases; the first of them probably is necessary for drinking and cooking, the second serves for watering cattle, the third for cleaning, the fourth for watering the garden, the fifth for sprinkling the road. At which number will he stop? This depends partly on his power of supporting fatigue, but chiefly on the number and intensity of his wants. The Esquimau, who uses water only to quench thirst, will stop at the first or second bucket; but the Dutchman, who cleans his house from roof to cellar, may have to draw fifty buckets before he thinks he has enough water.

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[1] Socialists and anarchists have bitterly condemned the Bible for representing labor as something humiliating and infamous, as the consequence of the Fall, and as a kind of punishment. They are evidently not very familiar with the text. In reality, the Bible represents God Himself as the first of workers, since He wrought six days and rested the seventh. The institution of a day of rest (which presupposes labor) dates before the Fall. Man, we are expressly told, was placed in the Garden of Eden "to cultivate it."

The doctrine taught by the Bible is this: In the world as made by the Creator work was attractive; but evil having entered it through the fault of man, labor lost the character of joyous and vivifying activity, which had previously been attached to it by the will of God.

If in addition to the stimulus of present and actual wants there is also that of future wants,—if, for instance, in a land where water is scarce the worker thinks of filling a well in anticipation of days of drought—productive activity is greatly increased. But the disposition to compare immediate toil with remote gratification—a faculty which is called foresight—belongs only to civilized races, and, among these, only to the wealthier classes. The savage and the poor are equally improvident.

V. Time as a Factor of Labor

All labor not only involves a certain amount of displeasure, but also requires a certain amount of *time*. Between the time when labor begins and the time when it produces the anticipated results, a shorter or longer period must necessarily intervene. This is one of the essential conditions of all production, a condition that is absolutely general. Nature herself is subject to it: long months pass by before the seed slumbering in the soil is transformed into wheat, and many years are required to change the acorn into the sturdy oak.

As a general rule the time of waiting is proportionate to the productiveness of the enterprise. Labors that furnish man with only a day's food, enabling him to live "from hand to mouth,"—such labors as fishing or hunting or gathering wild fruit,—do not require more than a few hours. The time needed to complete those great industrial and engineering enterprises that are the glory of the present day,—such as mines, artesian wells, railways, tunnels, and canals,—is long and proportionate to the magnitude of the results. It will be many years before the Isthmian Canal will be completed, although it was begun in 1881.

The element of time, an indispensable factor in all productive enterprises, is, as we shall presently see, one of the principal reasons for the importance of capital and the privileged position of those who happen to own it. It is plain that the men employed in building railroads or digging canals must subsist while engaged in such enterprises; the requisite food and materials must be advanced by those who possess capital.

It is not enough to note that time is an indispensable factor of all production; we must add that man has only a limited amount of time at his disposal, not only because life is short, but also because many deductions must be made from a man's time; of these deductions, three deserve special mention:—

(1) Man cannot work every hour of the day. Time for sleep and for meals must be deducted, and experience has shown that nothing is gained by trying unduly to lengthen the working-day. Custom and law fix this period at about ten or twelve hours, and there is a strong tendency to reduce it to eight hours, *i.e.* one-third of a day.

(2) Man cannot work all the days of the year. There is no country in which there are no holidays. England and America rigorously obey the rule to observe the Sabbath. Countries which, like France, pride themselves on being above the sabbatical superstition, make Monday a holiday.

Moreover, days of illness must be taken into account. So, after all, it is rare for even the most industrious workman to reach an average of 300 work-days a year.[1]

(3) Man cannot work all the years of his life. He must deduct the years of infancy, and also the years of old age (if he is fortunate enough to attain them). From the viewpoint of productivity those countries are most favored which count the largest number of persons between the ages of eighteen and sixty years, *i.e.* persons who are actively productive. Unfortunately, the majority die before attaining the end of this productive period, and a large number do not even enter upon it.[2]

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[1] The average in France, according to official statistics, is 295.

[2] According to the census of 1900, the number of persons in the United States between the ages of 15 and 60 was 507 per 1000 of the population; in France the number is 610 per thousand, and in Germany, 565.

The average age of decedents, according to the census of 1900, was 35.2 years. In France, of every thousand persons born, 644 reach the age of 18 years, and 360 pass the age of 60 years.

The average duration of human life in civilized nations is about 33 years. It is probably within the truth to declare that one-quarter of the number of persons born die before the age of 6, one-half before the age of 16, and only one person of each 100 born reaches the age of 65.

The average duration of human life is a matter of great economic importance, inasmuch as a very slight increase in the average means a great gain of productive power. The productive years of life of a population must support not only themselves, but also the unproductive years. (Consult R. Mayo-Smith, *Statistics and Sociology*, Vol. I.)

Many European nations are severely handicapped in their productive powers by the existence of large standing armies, consisting of men in the prime of life who not only are not productive, but who absorb a large part of the products of those that are engaged productively. The total *peace establishment* of Germany, France, Italy, Austria, Russia, Great Britain, and Turkey in 1902 was 3,283,905 men.

CHAPTER II — NATURE

THE term "nature" does not signify a definite, specific factor of production, but the sum total of those elements and productive forces that are furnished by our natural environment.[1] Before we can produce anything we must have a favorable *environment*, *land*, and *raw material* that can be utilized. Nature also provides the forces that are used to propel machinery.

I. Environment

Some historians and philosophers may have exaggerated the influence of geographical environment on the political, literary, and artistic development of peoples; but it would be difficult to exaggerate this influence so far as it concerns economic development and productive power.[2]

(1) *Climatic conditions.* Tropical lands may have witnessed the growth of brilliant civilizations, but they have never given rise to great industrial nations. Nature in the tropics seems to discourage productive activity, both by her generosity and by her outbursts of violence. In those blissful climes where food is the gift of nature, and there is no need

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[1] The term "land" was formerly used instead of "nature." These two expressions are, in fact, equivalent, if land is supposed to include not only the soil fit for cultivation, but the whole terrestrial globe and the atmosphere which surrounds it. To be sure, the only portion of the universe that can serve as the field for our economic activity is our planet, — and only the superficial crust of that. As savage tribes, however, have been known to make use of the crude iron found in meteoric stones, and as every motive force (winds, water currents, and the caloric energy stored up in coal) is, according to science, due to solar heat, the term "nature" is more accurate than the term "land."

[2] It is well known that Montesquieu attributed a decisive influence to climate. One branch of the school of Le Play, headed by M. Demolins,

for clothing or even housing, man learns to rely on nature and to avoid all effort. In those regions, moreover, physical forces are so exceedingly violent, their various manifestations (torrential rains, floods, earthquakes, cyclones) are so irresistible, that man is cowed and does not even conceive the bold idea of mastering and utilizing them. He scarcely provides for self-defence. In our temperate lands, on the other hand, nature is so niggard as to compel man to rely in a great measure on his own efforts. But the forces she displays are so gentle as to allow human industry to tame and utilize them. In these climates she may be said to foster productive activity both by what she refuses and by what she gives.

(2) *Geographical configuration.* Who can estimate the influence that England's insular position has exerted on her political, industrial, and commercial development? The continent of Africa, known to man from the remotest antiquity, and the seat of the oldest known civilization (that of Egypt), has to this very day remained beyond the pale of all economic progress, principally for want of a good system of navigable rivers. The same cause accounts fundamentally for the fact that North and South America, discovered hardly four centuries ago, are covered with an elaborate network of commercial routes running in all directions. The rivers of the New World flow into the ocean by large estuaries, and are so intricately joined that we can pass from the tributaries of the Plata into those of the Amazon and thence into the Orinoco,

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considers environment the starting-point of all social science. It distinguishes three kinds of soil, which give rise to three distinct types of primitive societies: the *steppe* to the *pastoral* races, the *seashore* to *fisher* tribes, and the *forest* to the *hunter* peoples. These are the fundamental types of *simple* societies, *i.e.* those which subsist solely on the spontaneous products of the soil.

But this school goes farther, and by means of the same theory explains the origin of all *complex* or civilized societies. Thus the primitive state of the soil is made the origin, as well as the sole cause of all present varieties of property, family, government, etc. This theory has been expounded in a very interesting manner by M. Demolins in his recent book, "Comment la route crée le type social."

or from the basin of the Mississippi to the Great Lakes, almost without leaving the waterway. But the rivers of Africa, though they are quite as large as those of America, do not invite commerce; a barrier of impassable cataracts or pestilential swamps makes the invasion of modern enterprise next to impossible.

(3) The *geological nature* of the soil and subsoil is quite as important; it creates agricultural and mineral wealth. The dread with which England calculates the time when her coal mines are liable to fail her, shows well enough how much she owes them for her industrial development.[1]

A nation is supported not only by its soil but also by its sub-soil, *i.e.* by its supply of coal, metals, petroleum, and all the other mineral resources that it possesses. Countries that possess both a fertile soil for agriculture, and a sub-soil that is rich in industrial raw materials, enjoy a great natural advantage over those that are not thus provided; they can support a larger population, or, at all events, a relatively wealthier one. In 1900, there were in the United States 581,221 persons engaged in mining and quarrying, and the total value of our mineral production exceeded $1,000,000,000.[2]

At first sight it would appear that man is powerless to modify the environment with which nature has surrounded him, and that his only resource is to adapt himself to it as best he can. Yet he does succeed in exerting some modifying influence on this environment, although his influence necessarily is limited. He cannot create mines where there are none, but by judicious agricultural improvements he can make soil cultivable, and change marshes, stagnant ponds, and even gulfs, into arable tracts. He cannot alter the geographical lines drawn by nature, but with a little complaisance on her part he can modify them; for instance, by completing a network of inland water communication. He can overcome such barriers as mountains and arms of the sea, by constructing roads above, or, better still, beneath them. He can separate Africa from the old continent, and South America from the new, and thus change these two peninsulas into islands. Climatic conditions he certainly cannot alter; but, by planting extensive forests, and by means of systems of cultivation not yet entirely understood, perhaps human industry will yet be able greatly to modify the rule of storms and winds.[1]

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[1] In 1866 Jevons declared that the English coal mines would be exhausted in a century, and Mr. Price Williams in 1889 made the same prophecy after a careful study of statistics regarding coal mining in that country.

There seems to be no doubt that China possesses an enormous supply of coal. The coal fields of China, Japan, Great Britain, Germany, Russia, and India contain apparently about 303,000,000,000 tons, which is enough for 450 years at the present rate of consumption. If we add the North and South American coal fields, the supply is about doubled. It should be borne in mind, moreover, that improved machinery has greatly increased the yield per miner.

[2] For the year 1901 the exact amount was $1,086,529,521. The most important items in this total were: Coal, $348,910,469 (at the mines); pig iron, $242,174,000; clay products, $110,211,587; copper, $87,300,515; gold, $78,666,700; petroleum, $66,417,335; building stone, $55,615,926; iron ores, $49,256,245; silver, $33,128,400; lead, $23,280,200.

II. Land

A certain amount of the earth's surface is necessary for man to stand on. More is necessary for him to sleep on, still more for building a house, and much more for raising wheat and pasturing flocks. When the population of a country increases beyond a certain density, the question of surface becomes a serious one. When human beings in obedience to their social instincts swarm in one of those huge centres like London, Paris, or New York, the space for housing becomes insufficient; plots of land acquire higher value than the buildings erected on them, even though they be palaces of costly marble.[2] As we shall see when dealing with house-rent, the social consequences which result from this state of affairs are most deplorable for the working classes.

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[1] In fact, some scientists have proposed to alter the course of the great maritime currents, such as the Gulf Stream, for the purpose of distributing heat and cold to the continents, just as water and gas are distributed in cities.

[2] As much as $450 per square foot has been offered for land in New York City at the corner of Wall Street and Broadway. Cf. the interesting article on this subject in the *Yale Review* for 1902, by Richard M. Hurd.

It would of course be absurd to fear that some day there will not be room enough on the earth for men to live on; yet it is not unreasonable to ask whether there will always be enough space to supply food. Considerable ground is required to supply food for one man, although the minimum requisite amount is always being diminished by the progress of civilization and agricultural methods. People that live by hunting must have several square leagues per man; pastoral races need several square miles; agricultural nations require only a few acres. The limit falls as we pass from extensive to intensive methods of farming.[1] In China, where farms are as small as our garden plots, the prevailing method of cultivation enables several persons to subsist on the produce of an acre. Yet the minimum of necessary space, though constantly reduced, still exists and is sufficient to cause some anxiety regarding the destiny of the human race.

The discovery of the New World, Australia, and South Africa has assured us sufficient territory for many generations. Yet with an annual increase of the human species scarcely less than fifteen millions, these reserves for the future will some day certainly be exhausted. There is now no hope of discovering new worlds. Before half a century has elapsed, the last vacant spot doubtless will be taken into possession, and the last boundary line will be drawn. Then the human race will have to content itself with fifty-two million square miles of land area, without the hope of ever increasing it by new conquests or discoveries; and our only consolation will be to repeat the line that Regnard, with a pride scarcely justified, wrote on a rock in Lapland: —

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[1] In Greenland among the Esquimaux, and among the native inhabitants of the Amazon forests who live by hunting, the density of the population is about one per thousand square miles. Among the Kirghises and Turcomans of Central Asia (who are shepherd peoples) the density is less than one per square mile. In Russia, an agricultural nation, it is 15 per square mile; in industrial nations like England and Belgium it is 557 and 538, respectively, per square mile.

In 1900 the density of the population of the United States was 25.6 per square mile; in 1890 and 1880, respectively, it was 21.2 and 17.3; but at the time of the first census, in 1790, it was only 4.9. The density varies greatly from one state of the union to another, and is greater in the cities than in country districts. In Rhode Island it is 407.0 and in Nevada only 0.4 per square mile.

> "*Hic stetimus tandem nobis ubi defuit orbis.*"

III. Raw Materials

The inorganic substances that compose the earth's crust, and the organic substances due to plant and animal life on its surface, supply industry with the raw materials that are indispensable to all wealth and that form its basal element. Some of the necessary raw materials nature has spread about with lavish profusion, while others she has given but sparingly. Even those that exist in large quantities may be scarce in certain regions. Drinking water is generally mentioned as an example of superabundant wealth; yet nearly all great cities find the supply of water insufficient, and resort to expensive engineering works to procure it. Only one substance is everywhere provided in unlimited quantities, viz., air. But when we are in quest of special qualities of healthfulness, coolness, or warmth in the air, then it cannot be said to be equally at every one's disposal. If at Newport, Bar Harbor, and any other celebrated seaside resorts a foot of land commands a high price, it is not because people are willing to pay a high price for the land itself, but because of the unequalled air and sunshine to be found at these places.

Those materials that are superabundant but unequally distributed, human ingenuity can transport to places where they are lacking. It is for this reason that transportation must be regarded as an act of production. But since matter, owing to its weight and inertia, sometimes offers considerable resistance to any attempt at removal, and since the labor and expense necessary for overcoming this resistance increase in proportion to the distance to be covered, the industry of transportation cannot entirely do away with the inequality of natural conditions.

As for those natural substances that exist in limited quantities, it is possible that man, by discovering the processes of nature which brought them forth, may actually reproduce them. We may some day be able to make diamonds by crystallizing carbon; or if the supply of coal should ever become exhausted, we may succeed in extracting fuel from the carbonates of lime found in large quantities in the earth's crust. It is also possible that we may find substitutes for those materials that are not obtainable in sufficient quantities. We sometimes succeed in doing this, and should always succeed if our knowledge were wide enough; for there is such an infinite variety of organic and inorganic substances — many of which possess similar characteristics —that they could to a certain degree take each other's place.

IV. The Law of Diminishing Returns

As land and raw materials are limited in quantity, the production in which they are the necessary factors also must be limited. And such is indeed the fact. Hunting, which played so great a part in primitive societies, has disappeared from the list of productive industries in civilized countries, for the very good reason that, despite the regulations established for its protection, it has ceased to give a satisfactory remuneration. Even in the wilds of Africa, and in the uninhabited territories near the poles, the hunt for elephants, ostriches, beavers, otters, and whales is becoming unprofitable. The scarcity of fish in the seas which border our shores is a subject of lamentation for our sea fishermen, who are now obliged to pursue fish out on the high seas and to equip themselves with larger vessels. The disappearance of forests, and consequently of wood for carpentry, is an accomplished fact in several European countries, particularly England.

To be sure, there are industries in which a change of processes may avert, for a time, the threatening calamity. Instead of hunting ostriches, we may raise them; instead of catching fish in the seas or rivers, we may hatch them; instead of merely cutting down trees, we may at the same time plant them. This would amount to changing these occupations from simply extractive industries into productive ones, like agriculture, in which we do not merely let nature work, but assist and guide her. There are, however, two important limitations even in agriculture: —

(1) Agricultural production is limited by the supply of *mineral substances* that are indispensable to plant-life. Every plot of land, even the most fertile, contains only a fixed amount of nitrogen, potassium, phosphoric acid, etc. A part of these essential substances is removed with every crop that is raised on the land. It is true that the farmer aims not only to restore to the soil a part of the substances that each harvest has removed, but also to enrich it by adding new substances. But it must be borne in mind that the sources from which the farmer derives these enriching substances are themselves limited. Natural fertilizers restore to the soil only a part of what the animals that pasture on it have consumed, and chemical fertilizers consist of minerals (phosphates, nitrates, guano, etc.), the supply of which is small and easily exhaustible.

(2) Moreover, agricultural production is limited by the *time* and *space* necessary for vegetable and animal life; these conditions are much more rigid, and less subject to modification, than those of industrial production. The farmer is reduced to an almost passive part in production; he must wait patiently for nature to accomplish her part of the work according to laws which he knows but imperfectly and which he cannot change. It takes months to transform the seed

into ears of wheat; and it takes years for the acorn to become an oak. Again, every plant requires room in which to spread its roots and to breathe; this space cannot be restricted. It is different with the industrial worker. The mechanic in his shop generally subjects matter to simple transformations whose physical and chemical laws are much less mysterious than those of organic life. The proof of this lies in the fact that these laws have been tamed, as it were, and obliged to work with mechanical precision at man's command. The industrial worker is not tied down to an inexorable succession of seasons; he can ignore climate and weather, and keep his machinery and furnaces going day and night, summer and winter.[1]

Doubtless, there is not a single piece of land of which the farmer could not, if need be, increase the yield. Only, after a certain point has been passed, he cannot do this except *at an increased cost in labor.* There must consequently be a point at which the effort made to increase the crop is incommensurate with the result.

Suppose an acre of land produces 40 bushels of wheat, and that these 40 bushels represent 20 days' labor, or, if we prefer to express the same thing in money, an expense of $20.

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[1] We may, nevertheless, ask the question: Since the limitations encountered by farming are due to the fact that it is concerned with living organisms, why should we not try to surmount this obstacle by courageously giving up the assistance rendered us by the mysterious forces of animal and plant life, and seek to manufacture food just as a scientist manufactures chemical substances? All the tissues of living beings, animals or plants, are made up almost exclusively of oxygen, hydrogen, nitrogen, carbon, and mineral salts. All these materials exist in superabundant quantities in the earth's crust and in the atmosphere. The problem, therefore, seems to be theoretically solvable; in fact, some chemists believe that we are on the verge of its practical solution. If chemists should ever succeed in solving it, they will have discovered more than the solution of a chemical problem, or even the problem of Life; they will have found the solution of the social problem, or, at least, they will have revolutionized all the laws of economics. For if food could be manufactured, agriculture would be useless, and man would use the earth merely to walk and build on. Every small piece of land could then feed a population as dense as that of the most populous quarters of our large cities.

To make an acre produce twice as much wheat (*i.e.* 80 bushels), more than 40 days of labor or more than $40 of expenditure would be necessary. To double the product it would be necessary to triple, perhaps to quadruple, the labor and expense. This fact is expressed by the *law of diminishing returns*, according to which the returns are not directly proportionate to the increased expenditure of labor or capital.[1]

This law is certainly borne out by the experience of every day. Ask an intelligent farmer whether his land could not produce more than it does. He will reply: "Certainly, the wheat crop would be larger if I chose to use more manure, to apply more thorough labor, to clear the land of the smallest weeds, to have the earth carefully dug up by manual labor, to use the hoe more thoroughly, and to protect the harvest from insects, birds, and parasitical weeds." Then ask him why he does not do all this, and he will reply that it would not pay; the increase of crops would cost more than it would be worth. There is therefore in the output of any piece of land a point of equilibrium which marks the limit, not beyond which it is impossible to pass, but beyond which no one cares to pass because there is *no advantage* in doing so.[2]

If things were not as they are in this respect, if we could increase the crop of a given piece of land indefinitely, upon the sole condition of proportionately increasing labor and expenditure, the tillers of the soil would not hesitate to do this: instead of increasing the size of their farms, they would reduce them to the smallest possible area, because the smaller the area the easier it is to manage a farm. But in this event the earth's surface would be entirely different from what it is. The simple fact that things are not as we have just supposed, and that poorer and less favorably situated land is in fact constantly brought under cultivation, demonstrates that in reality we cannot expect a piece of land under given conditions to yield more than a limited crop. (See the section on Rent.)

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[1] It is, of course, true that improved methods of cultivation may for a time put off the point of diminishing returns.

[2] It may appear strange to speak of the limitations of agricultural production at a time when the superabundance of farming products is such that European farmers are complaining, and governments in Europe feel called upon to protect them by customs duties excluding foreign cereals, cattle, etc. But this may be said to be an accident, due to the recent cultivation of large areas in new countries with sparse populations, on which extensive cultivation is easily practised because land is cheap and abundant. This fact explains the postponement of one effect of the law of diminishing returns, and its temporary suspension, but it does not abrogate the law.

V. Motive Forces

We have explained that production consists in changing the place or the form of matter. The resistance offered by matter to these changes may sometimes be considerable, and man's muscular energy is not very great. In all times, therefore, and especially since the abolition of slavery has made it impossible to employ the strength of his fellows, man has endeavored to supplement his strength by using the motive forces provided by nature. There are not very many of them, and they have often been overestimated. There are really only four or five which man has been able to utilize in production: the *muscular energy of animals*, the *propelling power of wind and of water*, the *expansive power of vapors* (especially of steam), and recently, although thus far in a small measure, *electricity*. Man makes use of these natural forces by means of *machinery*. Machines are only tools, with the difference that most tools are manipulated by hand, whereas machines are worked by natural forces, such as waterfalls and steam.[1] Now it is a difficult problem to utilize natural forces and make them turn wheels, propel planes, or work shuttles.

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[1] When the instruments worked by man are complicated, they are sometimes also called machines, *e.g.* sewing-machines; but this terminology is not correct. Besides, tools and implements can also multiply the power of man. Aided by a hydraulic press, a child can exert a pressure that is theoretically unlimited. With a lever and a place on which to rest it, Archimedes could have moved the world. Yet it has been calculated that had Archimedes found this necessary point of support, and worked several millions of years, he could have raised the world only a few inches; for a law of mechanics

Much has been written of the importance of farm machinery in the economics of agriculture, but the fact is too often overlooked that the machinery is valueless unless driven by some other power than human muscle. The power of steam and of falling water applied through the agency of the steam-engine and the water-wheel gives great effectiveness to labor in factories. The corresponding power of the farm at the present time is principally that of horses and mules, although in California, Hawaii, and Louisiana the steam-engine is used to a limited extent in ploughing and in transporting cane from the fields to the sugar-houses.[1]

In our manufactures the four important motive forces are steam, water, electricity, and gas. Steam, which in 1870 furnished 51.8 per cent of the motive power for manufactures, now supplies 77.4 per cent. Water-wheels, which in 1870 provided 48.2 per cent, now furnish only 15.3 per cent. Electric motors in 1890 represented only three-tenths per

teaches that every gain of power is counterbalanced by a loss of speed. With the aid of mechanical devices a man may be enabled to lift a thousand times as much as he can lift with his arms, unaided; but it takes a thousand times as long to do it. Now, as time is valuable, the advantage resulting from the use of implements is practically restricted. When, however, machines are operated by means of natural forces, there is no limit to the increase of power.

There are vessels that have machinery capable of producing 30,000 horse-power, which is equivalent to the strength of 300,000 rowers, or even 900,000, as it would be necessary to have three relays every twenty-four hours. These rowers could propel such a vessel three or four miles an hour, whereas modern methods secure a speed of 25 to 30 miles. Assuming that such a vessel as this employs 200 men, the power of each may then be said to be multiplied by 4500 through the use of modern propulsive machinery.

The Sunday editions of some of our newspapers contain more printed matter than this whole volume. If the amount were the same, the circulation only 100,000, and all the work had to be done in writing in the same time now occupied by printing (*i.e.* about four hours), *three million* persons would be required to publish such a paper.

[1] In 1900 there were in the United States 5,739,657 farms, having a total of 21,646,731 horses, mules, and asses.

cent, and now they produce 2.7 per cent of the power used in manufactures. In 1890 the gas-engines used in manufacturing produced only one-tenth of one per cent of the total power utilized, whereas in 1900 they furnished 1.3 per cent.[1]

A few decades ago the use of power in any considerable quantity was limited practically to manufacturing operations; but within the last ten or twelve years the use of electricity for lighting and for the operation of street railways has developed enormously. During 1900 there were over twelve hundred electric railway lines in operation in the United States, and over thirty-three hundred central stations for the distribution of electric current for lighting and power purposes. The modern office building, often housing a population equal to that of a small town, is almost wholly a creation of the past ten years, and the power required in these great structures, not only for lighting purposes, but for the operation of elevators, pumping water, compressing air, and operating refrigerating and ventilating machinery, forms a large item when the number of these buildings in the United States is taken into consideration.[2]

The use of electricity, moreover, as an agency for the transformation and transmission of the energy developed by falling water, has entirely changed the conditions under which such primary power can be utilized to advantage. The practical possibility of transmitting power thus developed over long distances has removed the necessity of building mills adjacent to water powers. Again, the use of steam power, either directly applied or electrically transmitted, is becoming more and more general in mining and quarrying, in public works of every description, in the sinking of foundations, in the erection of buildings, and in nearly every branch of industry. Thus the amount of power used apart from manufacturing operations is increasing rapidly.

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[1] According to the Twelfth Census of the United States, the aggregate motive power employed in our manufacturing establishments in 1900 was 11,300,081 horse-power, as compared with 5,954,655 horse-power in 1890, 3,410,837 horse-power in 1880, and 2,346,142 in 1870.

[2] Very interesting data regarding the new uses of power, and especially of electricity, are given in Vol. VII of the Twelfth Census, from which nearly all of the above facts are taken.

It should be noted that the more powerful these natural forces are, the more time and trouble it has taken man to utilize them and make them subservient to his purposes. Their resistance increases with their power. The "harnessing" of Niagara Falls, for example, was so stupendous an undertaking that our forefathers, scarcely conceiving its possibility, left it for modern engineering to accomplish.

The domestication of various animals — such as the horse, camel, ox, elephant, reindeer, and Esquimau dog — supplied man with the first natural force for carriage, draught, and tillage. This was an important conquest, for animals are relatively stronger than men. A horse's strength is estimated at six or seven times that of man, and the food a horse requires is by no means of greater cost. But the number of horses in a country is limited, especially in countries with an increasing population, for they require considerable space whence to obtain food; therefore the motive force they afford is, in populous countries, of comparatively little account.

The motive force of wind and water has always been used for transportation, but its industrial application has until recently been confined to turning windmills and water-wheels.

The expansive power of gases, or rather the heat generated by combustion, (of which this force is only a transformation,) is *artificial* in the sense that it is not created by nature, but by man. For this reason it possesses inestimable advantages. Man can generate it where he pleases, when he pleases, and in the manner and quantity that suit him. It is mobile, portable, continuous, great or small according to demand. The power of steam can be raised to many times the atmospheric pressure; theoretically, at least, there is no assignable limit to the possibilities of its increase.[1]

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[1] Water heated to 516 degrees Centigrade — not an exceedingly high temperature — should develop a pressure of 1,700,000 atmospheres, which is more

The prehistoric inventor whose name will remain forever unknown, but whom the gratitude of mankind has deified as Prometheus, who first caused a spark to spring from the friction of two pebbles, never suspected when he looked on this flame, which was probably due far more to chance than to his genius, what a marvellous power he was granting to human industry. Fire ministered first of all, no doubt, only to the humble wants of domestic life. Later it was used for the extraction, the founding, and working of metals. Its utilization as a motive force dates from the time that men discovered the explosive power a spark could communicate to some substances, *e.g.* gunpowder; and in this form it is still employed not only to hurl projectiles for a mile or two, but also to bore tunnels and break rocks. But it was not until Newcomen, in 1705, and James Watt, in 1769, used it for producing steam in a closed reservoir, and thus created the wonderful instrument of modern industry which we call the steam-engine, that fire, or rather heat, became the guiding spirit of industry.[1]

We are therefore justified in asking, with some degree of anxiety, what will become of human industry when the supply of coal runs short and our fires must be extinguished? Probably we shall then return to the forces of nature and learn to make better use of them. Already we have begun to do this. Much has been said recently of the "white coal," which consists of glaciers; the water that runs from them in torrents has been made to propel water-wheels and is thus

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than sufficient to lift the Himalaya Mountains. The only difficulty would be to find some means of containing this pressure.

[1] I call the steam-engine a wonderful instrument because of the services it has rendered. But in reality it is a very defective device. It utilizes only a small part, at most a tenth, of the heat generated by the combustion of coal. Much of it is lost from the furnace to the boiler, and some between the boiler and the engine proper. Hence the remark made by a well-known French engineer, Le Bon, "I hope that before twenty years have passed, the last specimen of this rude machine will have taken its proper place in museums, side by side with the stone hatchets of our primitive ancestors."

used to manufacture paper. In the mountainous regions of Savoy, Switzerland, and Italy, hydraulic energy produces several thousand horse-power, which is employed in producing electricity and in manufacturing aluminum and carburetted calcium. Elsewhere the same power is employed to furnish illumination for towns or motive force for street railways.

Progress in this direction probably has been as rapid in the United States as anywhere else. Here electrical transmission has rendered possible the advantageous utilization of water power in several distinctly new forms, such as: the large central stations for distributing power to numerous plants; the use of remote mountain water powers for the operation of single plants, often many miles distant, of which so many notable examples are to be found in the far West; and the more advantageous use of larger streams on the Atlantic coast, usually in closer proximity to the mills, but under conditions which would present many difficulties without the useful agency of the electrical current.

The development of electric power transmission at Niagara Falls has been the largest and most conspicuous of its kind, although as to the length of transmission and the voltage at which the current is sent over long distances it is by no means the best example that can be found. There are two separate and distinct enterprises on the American side of the Falls, one of which has an ultimate capacity of one hundred thousand horse-power. The potential power of the main stream is estimated to be equal to at least six or seven million horse-power.[1]

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[1] A large amount of Niagara current is employed in electro-chemical and electro-metallurgical operations. In the immediate vicinity of the Falls the current is now used for electric lighting, and about one thousand horse-power is also delivered to the street railway trolley system. Factories on the spot, working up raw material into food, textile fabrics, etc., utilize several hundred horse-power, and the current is also used for the manufacture of "merry-go-rounds," as well as for operating ventilating blowers in the public schools.

The current is carried from Niagara to Buffalo for use by the street railway system, so that at all hours of the day and night Niagara is transporting the public of a great city more than twenty miles distant. Current from the same

It is certain that in glaciers and in all running waters there are almost unlimited quantities of stored-up energy. 'It has been estimated that the motive force of the streams of France alone amounts to thirty million horse-power — an amount of physical energy almost equivalent to that of all men of working ages in the entire universe. The waves which the wind causes on the surface of the seas, or the rising tide which twice every day presses against thousands of miles of coast-line, really constitute inexhaustible stores of motive power. Unfortunately, these forces of nature, which might lift the world, still seem too savage and too untamable to be controlled. But if they could be transformed into electricity, the energy they provide might be made transportable and divisible. The current of the Rhone River, which has uselessly expended itself in wearing away pebbles, is now employed to work the looms of the Lyons silk factories. Motive force is at present distributed to the small establishments that require it, just like water and gas; the mere turning of a spigot or pressing a button is sufficient to obtain it. Very lately it has been suggested to draw from the source of all energy — the sun itself — all the heat we require. But even admitting that this could be done, the force borrowed from the sun would — more than any other natural force — have the disadvantage that we should probably be unable to develop it wherever, whenever, and to the extent that we want it. The sun does not shine everywhere nor always. If ever England should depend on it to work her factories, what a terrible calamity this would

source is used in several miscellaneous industries at prices which compete so favorably with those of steam, oil, natural and artificial gas, that the demand is rapidly increasing.

Electric current is now transmitted from the Sierras, in eastern California, as far as San Francisco: this constitutes the longest electric power transmission in the world, the distance being about two hundred miles. The employment of this current is not less varied than at Niagara, ranging from the operation of street cars in Oakland to the running of a flour mill at Stockton, and from use in mines in various parts of the state to use in miscellaneous industries at Sacramento, Benicia, San Jose, and elsewhere.

involve for that nation! The fogs of the North Sea would become her shroud. Men would then be obliged to build their industrial centres in the heart of the Sahara desert, where the sun shines most hotly and most steadily.

VI. The Illusions to which Machinery has given Rise

Ambitious hopes have been aroused by the marvellous effects of the use of machinery propelled by the forces of nature. It seems almost as though we may some day be liberated from the necessity of working to gain a living. Some persons have estimated that four hours of labor, or perhaps even two hours, or, according to a socialistic calculation, one hour and twenty minutes per day, would suffice to produce more wealth than is necessary to satisfy all our wants.

The manufactures of the United States were in 1900 carried on very extensively by means of steam, water, gas, and electric power; according to the census of manufactures of that year over 11,300,000 horse-power was produced by machinery thus propelled. As each horse-power is equivalent to the muscular energy of six men, it would have required 67,800,000 men to furnish this amount of power. The manufacturing industries of the nation were, however, really carried on by less than 6,000,000 persons. In 1902, moreover, there were nearly 40,000 locomotives in the country. To have done the work of these locomotives upon the common roads of the country there would have been required, in round numbers, 76,000,000 horses and 19,000,000 men.[1] But all the railroads of the country were operated by only one million persons. To have done the work, then, accomplished by power and power machinery in our mechanical industries and upon our railroads there would have been required nearly 87,000,000 men. Now according to the ratio of the census of 1900, 87,000,000 men represent a population of over 400,000,000 persons, which, if the use of power in manufactories and on the railroads were discontinued, would have to be added to our present population of 76,000,000.

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[1] This calculation is made on the same basis as that given by Carroll D. Wright, United States Commissioner of Labor, in his "Outline of Practical Sociology," Fifth edition, 1902, p. 120.

If in addition to the above-mentioned uses of power machinery, we consider its extension to many fields of application in which its use was previously unknown, we shall be ready to admit that the power machinery used in the various industries of the nation has multiplied each workman's productive power at least ten times ; or, to employ a more picturesque metaphor, we may say that each of them has ten slaves at his service, giving him a position almost equivalent to that of a Roman patrician and permitting him to add the pleasures of wealth to those of idleness. As a consequence of this new slavery that takes the place of the old, why will not the men of the future be able to lead the noble life of the ancient Greeks in the Agora or of the Romans in the Forum; why will they not then be able to consecrate to political life, to artistic amusements, to gymnastic exercises, or to elevated mental speculations, the hours that were previously devoted to manual labor, — with the sole difference that what was formerly the privilege of the few will become the lot of all?

This is indeed an alluring prospect, and the socialists exult in it. It is perhaps unfortunate that a closer analysis dissipates the illusion. Such a social state as this may, indeed, not even be desirable. Antique slavery was no less harmful to the masters than to the slaves, since it led the former to lose all habit of effort and all taste for work. It is to be feared, therefore, that the slavery of natural forces would have similarly disastrous effects on the men of the twentieth century. They, too, might in the course of time have no ideal but that of the degenerate Romans: *panem et circenses.*

Furthermore, an analysis of the above fantastic prophecies will show that these hopes are greatly exaggerated. The larger part of the mechanical energy used in modern industrial life is applied exclusively to transportation, by means of steamboats and locomotives. Machinery does, to be sure, multiply our productive energy; but a large number of workmen are employed both in producing it and in attending to it while in use.[1] Steam has, of course, effected a revolution by almost removing the difficulties of transporting passengers, exchanging goods, communicating ideas, and by developing the solidarity of mankind. From this point of view it has performed an ethical service the importance of which cannot be exaggerated. But it would hardly be true to say that steam, when applied to transportation, has multiplied products.[2]

The goods an increase of which could cause a notable improvement in the condition of mankind are agricultural products; the first requisite of welfare is food, and, if possible good food in abundance. Yet this is precisely the provinc in which machinery has thus far made but little advance Of the machines employed in farming, there are few that really increase production. Irrigating appliances doubtless do increase crops, but threshers and most of the other machines simply economize human labor but do not bring forth a single additional blade of wheat. In fact, many machines involve a partial waste of the crop that would have been saved by careful manual labor. Is this slow development of machinery[1] in the food-supplying pursuits due only to the routine spirit of the farming classes, as many think, or is it due rather to the nature of agriculture itself? The latter explanation seems to us the true one. The soil is the laboratory of Life, and Life has forces that are mysterious and recalcitrant.

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[1] Professor Leroy-Beaulieu points out in his "Treatise on Political Economy" that economic progress is less great in reality than in appearance, inasmuch as a *gross* increase of productive power is mistaken for a *net* increase. Not only is a great part of mechanical energy applied exclusively to transportation, but many machines are used only to manufacture other machines or objects that are not directly consumable. Machines, moreover, require a large number of workmen for their production, their repair, and their management. Few machines are utilized to the full extent of their productive capacity, and a large number remain idle a great part of the time. Again, all the labor and machinery that is used for purposes of advertising, making samples, etc., cannot be regarded as really productive. Besides, the rapid succession of new inventions, discoveries, and improvements leads to the abandonment of machinery that has been used but a short time. Finally, machines consume large amounts of coal, oil, and other materials whose production and transportation require the labor of many persons.

[2] Steam transportation multiplies products *for the time being* by bringing them from distant places; but this is clearly only a temporary state of affairs due to the fact that these localities are still very sparsely populated and need not keep for their own consumption all that they produce.

There is still another business that is of capital importance from the viewpoint of human prosperity; namely, the construction of houses. To this branch of production machinery is scarcely applicable, save under exceptional circumstances.[2]

The use of natural forces to propel machinery has resulted in great cheapness and abundance only in one field of productive activity; namely in manufacturing. In this branch it has gone even beyond our hopes, since it causes a superabundance and obliges great industrial producers to combine for the purpose of restricting the output.

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[1] The census of 1900 indicates that implements and machinery used on farms in the United States represent only 3.7 per cent of the value of all farm property. This is equivalent to an average of 90 cents per acre devoted to farming in 1900, whereas in 1890 the value was 79 cents per acre; the census adds, however, that "a part of this increase is unquestionably more apparent than real."

An account of the exceptionally extensive use of machinery in agriculture on the "bonanza farms" of the West is given by William Allen White in *Scribner's Magazine* for November, 1897, under the title, "The Business of a Wheat Farm."

[2] There are houses in sheet-iron that may be taken apart and transported. If this method of construction were to become general, it would cause a great revolution. Houses would again become mere furniture, as in the patriarchal period. But at present machinery is employed only in the larger cities in constructing buildings. The result is that comfortable homes (with which health, family life, and morality are so closely connected) do not increase as rapidly as our need for them; the rent of buildings increases more quickly than the price of food.

It must, however, be admitted that machinery is used quite extensively in the construction of high buildings in our large cities. Not only is the entire framework of these structures frequently made of steel, but power tools are used for such diverse purposes as drilling, blasting rocks to construct foundations, cutting stones, etc., — all of which are elements in the cost of buildings.

Finally, we must blame machinery for the crises produced by a superabundance — an overproduction — of goods; we must blame it for the barrack system of factories that marks modern industry, and, above all, for the constant failure of many workers to find employment. The last of these effects is the most remarkable result of the use of machines; it has aroused the bitter opposition of the working classes to the introduction of labor-saving (and consequently labor-supplanting) machinery.

It scarcely seems necessary to multiply examples of the economy in labor effected in some branches of production by the introduction of machinery, so often has this fact been emphasized and discussed.[1] There is, moreover, no cause for

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[1] The following facts are taken from the First Annual Report of the United States Commissioner of Labor for 1886: In the timber business 12 laborers with a Bucker machine will dress 12,000 staves. The same number of men by hand labor would have dressed in the same time only 2500. In the manufacture of paper a machine now used for drying and cutting, run by 4 men and 6 girls, will do the work formerly done by 100 persons, and do it much better. In the manufacture of wall paper the best evidence puts the displacement in the proportion of 100 to 1. In a phosphate mine in South Carolina 10 men accomplish with machinery what 100 men handle without it in the same time. There has been a displacement of 50 per cent in the manufacture of rubber boots and shoes. In South Carolina pottery the product is 10 times greater by machine processes than by muscular labor. In the manufacture of saws, experienced men consider that there has been a displacement of 3 men out of 5. In the weaving of silk the displacement has been 95 per cent, and in the winding of silk 90 per cent. A large soap-manufacturing concern carefully estimates the displacement of labor in its works at 50 per cent. In making wine in California a crushing machine has been introduced with which 1 man can crush and stem 80 tons of grapes in a day, representing an amount of work formerly requiring 8 men. In woollen goods modern machinery has reduced muscular labor 33 per cent in the carding department, 50 per cent in the spinning, and 25 per cent in the weaving. In some kinds of spinning 100 to 1 represents the displacement.

Further data of the same nature may be found in Carroll D. Wright, surprise in the frequent occurrence of labor agitation against the introduction of machinery; the industrial history of the last few centuries is full of examples not only of popular animadversion but of actual violence toward those who are held responsible for its invention. In the sixteenth century the city of Dantzig prohibited the introduction of ribbon looms, and the inventor of them was drowned by the enraged populace. Jacquart, the inventor of a weaving loom, three times came near being killed by the people of Lyons. Hargreaves was persecuted by the workers in England. In 1811 a party of English laborers called Luddites destroyed newly invented machinery in the northern and midland counties, and were only suppressed by military force. A former president of Mexico, Santa Anna, opposed the plan to build a railroad because it would deprive the muleteers of their employment.[1]

The direct advantages of machinery which political economists have generally pointed out are principally the following: —

(1) Machinery diminishes the strain on human muscles and relieves men of the grievous fatigue which not very long ago made them prematurely old. It does away with the disgust of many kinds of labor that were formerly exceedingly distasteful.

(2) Machines permit the employment of workers of average strength and ability for tasks that formerly required an exceptional degree of one or both.

(3) Machines perform work much more rapidly than would otherwise be possible.

"Industrial Evolution of the United States," Chapter 27; J. A. Hobson, "Evolution of Modern Capitalism"; the article on Machinery in Bliss, "Encyclopædia of Social Reform"; and the Thirteenth Annual Report of the United States Commissioner of Labor, which is devoted entirely to the subject of Hand and Machine Labor.

[1] Many incidents of the same nature may be found in Roscher's "Nationaloekonomik des Handels und Gewerbefleisses." The Luddite riots are referred to by Green, "History of the English People," Vol. IV, p. 377.

(4) Machinery excels, both in the performance of exceedingly great tasks and in the accomplishment of exceptionally delicate ones. There are trip-hammers weighing several tons that strike three hundred blows a minute, as well as delicate devices that could crack an eggshell without crushing it. There are engines of ten thousand horse-power, on the one hand, and, on the other hand, dividing machines that can cut an inch into ten thousand equal parts.

(5) Machinery performs the monotonous work and lessens the monotony of life. "Nothing could be more narrow or monotonous than the occupation of a weaver of plain stuffs in the old time. But now one woman will manage four or more looms, each of which does many times as much work in the course of the day as the old hand loom did; and her work is much less monotonous and calls for more judgment than his did." — MARSHALL, "Economics of Industry."

(6) Machinery permits the production of a large number of exactly identical pieces or products, and thus gives rise to the modern system of "interchangeable parts," permitting the broken parts of machines to be replaced at once by exactly similar pieces. Were this not possible, the broken parts of a machine could be replaced only at great cost, by sending them back to the manufacturer or by bringing a highly skilled mechanic to the machine.

(7) Machinery weakens the barriers between different trades, because many machines which are in use in one industry are similar in general character to those used in many other industries. "Most of the operatives in a watch factory would find machines similar to those with which they are familiar if they strayed into a gun-making factory or sewing-machine factory, or a factory for making textile machinery" (Marshall, as above).

But the problem of machinery, viewed in its widest and fullest significance, is so important and has given rise to so much controversy that we shall devote a separate section to its consideration.

VII. Whether Machinery is detrimental to the Working Classes

The classical economists who sought to prove that in our economic organization there could be no conflict between the interests of society and those of the individual, endeavored to show that machinery does more good than harm to the working classes. The three classical arguments are the following: —

(1) *Machinery lowers prices.* Every mechanical invention lowers the cost of producing an article, and consequently lowers its value. By the subsequent fall in prices, the workman gains an advantage as consumer that is equivalent to his loss as producer.

To this argument we must reply that the compensation in reduced prices will not exist if the product in question is not one consumed by the worker; and this is certainly possible. The manufacture of certain lace fabrics by means of machinery will lower the price of these goods; but as the poor woman who made them originally by hand is not accustomed to wearing that kind of goods, the fall in price is no compensation to her.

Even admitting that the product in question is ordinarily consumed by the worker, it may, nevertheless, form so small a part of his expenditures that the fall in prices is only an insignificant saving. The woman who knits stockings and who loses her employment because of the invention of knitting machines, will not readily find much consolation in the prospect of being able hereafter to buy her stockings cheaper at the hosier's.

In order that the compensation supposed to exist be a real one, mechanical progress would have to *take place simultaneously in all branches of production*, so that the consequent fall in prices would be general and simultaneous. In this case it might correctly be said that it matters little to the workman that he receives only half his former wages, since all his expenses are also reduced by half. But we have already pointed out that mechanical inventions are not applied to an equal extent in all branches of production, but only in a small number of them, and that they affect but slightly the cost of the important necessities of a workman, viz., food and housing.

(2) *The increase of production.* The optimists claim that every mechanical invention causes a fall in the price of goods; lower prices must involve larger sales and increased production, and the final result is always to give new employment to the workmen that have been temporarily displaced. Instead of taking work from them, inventions make work for them. Many examples of this may be mentioned, among them the invention of printing; owing to the increase of books since the invention of printing, how many more printers there are now than there were copyists in the Middle Ages![1]

To this we may answer, first of all, that although an increased sale is frequently a consequence of lowering prices, this is by no means always the case. It is notably not the case under the following circumstances: (*a*) Whenever a commodity is used to satisfy a want that is limited. The example of coffins has become classical. No matter how cheap coffins have become, most of us have no use for more than one. There are many other products, such as wheat and salt, the consumption of which would scarcely be increased by a fall in prices. There are, moreover, articles of luxury which would be *less* in demand if their prices should fall considerably. (*b*) Whenever one industry is bound up with another a fall in prices has little effect on the amount sold. This is a very frequent case. The production of wine bottles and casks is limited by that of wine, and no matter how low the price of bottles and casks may fall, no more of them will be sold if there is no more wine to put in them.

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[1] In England the number of workers employed in manufacturing cotton textiles in 1835 was 220,000. To-day there are more than 500,000. Yet it is in this very line of work that machine-industry has made the most progress.

Similarly, the production of watch-springs is limited by that of watches; the production of rivets by that of boilers, etc.; and that of boilers by other causes than the price, — such as the development of metallurgy, transportation, and mining.

Moreover, even admitting an increase in consumption proportionate or more than proportionate to the fall in prices, it will require a long time — perhaps generations — before this increase is effected. It takes time for the old prices to fall, especially since the dealers and manufacturers are not eager to make the change, and the public is accustomed to the old prices. Competition among producers finally will cause them to fall, but rival industrial establishments are not built in a day. Still more time is necessary for the fall in prices to extend the market to those lower strata of society that do not change their habits or their wants in a short time. While all this is slowly being accomplished, what shall the workman do who has lost his employment? Perhaps his grandchildren will profit by the change of conditions; but for him there is little consolation.

(3) *Economy of labor.* The use of machinery that economizes manual labor necessarily involves, it is maintained, a gain for some one. This gain is realized either by the *producer* in the form of increased profits if he continues to sell his goods at the old price, or by the *consumer*, in the form of reduced expenses if, as is probably the case, the price of the article falls to the level of the new cost of production. The money that was previously paid to the workmen that are now without work is not lost; it is either in the pocket of the employer or in the pockets of the consumers. If this is the case, what will be done with it? It will be invested or spent; there is no other alternative. In either case the money will encourage industry; it will develop production either by increasing the consumption of old products and inaugurating that of new products, or by providing new capital for productive enterprises.

Ultimately, then, the optimists contend, every mechanical invention "sets free" not only a certain amount of labor, but also a certain quantity of capital; and as these two elements have a great affinity and cannot do without each other, they will end by combining.

This is the argument that Bastiat advances. It is valid from an abstract of view, but we must ask: Where and when will this combination of labor and capital be effected? Perhaps in ten years; perhaps at the other end of the world. Possibly the consumer will use his savings to help dig a canal at Panama or build a railroad in China. Capital, when once set free, can easily find investment; it is nowadays readily transportable and can be applied almost anywhere. Unfortunately the workman cannot so easily be moved. He is not fit for every kind of work, nor can he go to distant parts of the earth in quest of employment. In the long run he will of course change his place of work or his occupation, but the process may be a long and unpleasant one. And if the change becomes necessary with every new invention of machinery, workmen will be constantly out of employment. The natural effect of a permanent army of unemployed workers, often numbering from ten to twenty per cent of the laboring population, weighs on the market and lowers the wages of labor.[1]

In a word, all economic progress, whether it consists of mechanical inventions, or methods of organizing labor, or systems of exchange, can have no other effect than to render a certain amount of labor useless. As the organization of modern societies is founded on division of labor, which requires that each man perform a particular kind of work, this progress — whatever may be its nature — must make some one's labor useless, and thus rob him of his livelihood. Here lies the great difficulty.

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[1] The data regarding the number of unemployed laborers in this country are generally unsatisfactory. In 1890, at the Federal census, it was shown that out of the total number of persons ten years of age and over engaged in gainful occupations, the number unemployed during the entire census year was 1,139,672, or 5.01 per cent of the total number engaged in gainful occupations.

There is an article in the *Quarterly Journal of Economics*, Vol. VIII, taking a less favorable view of the situation. According to this article, the number of unemployed in 38 cities in 1893 is estimated at 523,080; upon this basis the number in the whole country would doubtless reach 1,600,000.

Regarding the share of labor since the introduction of machinery, there are some significant statements made in the latest *United States Census*. In Vol. VII, pp. cxxiii-iv, it is declared that machinery lowers the total wages of the group of laborers in many industries, and also reduces the average rate of wages.

Must we, therefore, — as Ruskin and his disciples maintain, — preach to men the abandonment of steam-engines and machinery, and return to manual labor and more humane natural forces, like those of wind and water? It is doubtful whether such advice would be followed. There are, nevertheless, reasons for believing that the great economic and mechanical transformation witnessed by the nineteenth century is drawing to a close, and that our grandchildren will not be troubled by the same social upheavals as have recently occurred; it is probable that they will be able to live a calmer life than we, a life more like that of our grandfathers.

Indeed, history demonstrates that in the economic evolution of humanity, periods of rapid change have been followed by long periods of a more or less stationary nature. It is therefore probable that the great economic revolution of the present will be succeeded by a long period of rest, or at any rate of very gradual progress, like that of the thousand years that preceded it. The invention of the steam-engine has already produced most of the consequences that can be expected of it. Does any one object that new social transformations will be caused by new inventions? If so, how do we know? And even if such a prediction were realized, it is not probable that the substitution of some undiscovered device for the steam-engine would produce a revolution comparable to that caused by the substitution of steam-engines for manual labor. Within half a century the whole world will be girded and interlaced by a network of electric telegraphs and railroads. This is a transformation that is nearly accomplished now, and that need not be repeated.

Let us assume that balloons will be made capable of direction. Is the transportation of goods and travellers by balloon likely to have the same economic consequences as replacing wagons by railroads? Finally, in a few years hence, the human race will be settled on all the space that is available on the surface of the earth; there will be no more vacant lands, and the economic perturbation caused by the competition of new countries in the markets of the Old World also will be terminated. The present social transformation, therefore, probably will soon be completed, and doubtless will be succeeded by a period of more gradual change.[1]

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[1] John Stuart Mill, in a remarkable chapter of his "Political Economy" (Book IV, Chapter 6), refers to "the impossibility of ultimately avoiding the stationary state — this irresistible necessity that the stream of human industry should finally spread itself out into an apparently stagnant sea." He declares himself inclined to believe that the stationary state of capital and wealth "would be, on the whole, a very considerable improvement on our present condition."

CHAPTER III — CAPITAL

I. The Two Concepts of Capital

No economic concept save that of value has given rise to so many theories as that of capital. All the theories of capital, however, may be brought under two heads, representing two great opposite tendencies. The first is that of the classical economists; the second that of the socialists. The former we shall outline first.

(A) Numerous authors have invented stories of the Robinson Crusoe type, with a view to showing us how man originally grappled unaided with the difficulties of existence. But not one of these authors has failed to provide his hero with a few tools or provisions, usually saved from a shipwreck. These writers knew perfectly well that unless they did this the story would have had to stop at the second page, for the life of their hero could not have lasted longer. Yet what would Robinson need? Had he not the ability to work, and all the resources of the fruitful virgin soil upon which novelists wisely stranded him? Yes; but there was still something lacking, and as the romantic hero could not do without it, writers were obliged to devise some scheme by which he might obtain it. This requisite thing was *capital*.

But it is unnecessary to imagine the romantic situation of a Robinson Crusoe in order to be convinced of the utility of capital. The same state of things prevails in actual everyday society. There is no problem more difficult to solve than how to acquire something when one possesses nothing. Take a common laborer, a man without means. How can he earn his bread? He cannot engage in any productive enterprise, not even that of a poacher, for a poacher needs a gun. He cannot even become a burglar, without implements. He might render slight services, such as running errands or opening the doors of carriages in front of the theatres; but this is more like begging than like productive work. He would be as wretched, as helpless, and as sure to die of starvation, as a Crusoe who had saved nothing from the wreck, were it not for the wage-system that enables him to enter the service of some one provided with capital who is willing under certain conditions to furnish him with the food and the tools that are requisite for production.

Animals doubtless depend on their "labor" and on nature to obtain food and to satisfy their other wants. Primitive man was necessarily in the same situation. The very *first* capital that man possessed must have been made without the aid of other capital. At some time or other, man, worse off than Robinson on his island, must have solved the difficult problem of producing the first wealth without the help of any preëxisting wealth. He was originally reduced to the need of starting the whole onward movement of human industry by the aid of his hands alone. Once started, however, the most difficult step was taken, and human industry has ever since then progressed with increasing rapidity. The first pointed stone that was picked up, the flintstone of the anthropopithecus, served to help make other new implements under conditions more favorable to production; and these in turn helped to prepare the way for still more discoveries. The ease of production increases like a geometrical progression, and is proportionate to the amount of wealth already produced. It is well known that although, after a certain point, a geometric progression increases very rapidly, the increase is very slow at the beginning. Similarly, our modern societies, living on the wealth stored up by a thousand generations, find it easy to increase all kinds of wealth; yet they should not forget how slow and perilous at the outset this process of accumulation must have been. How many centuries must have been required for man to traverse the epochs of hewn stone and of polished stone, and to lay up the first supply of capital! There is no doubt that millions must have perished of misery during this critical period. Only a few races have been able to traverse it and rise to the rank of truly capitalistic societies. *Ad augusta per angusta.*

(B) The second explanation of capital, given by the socialists, especially by Karl Marx and Ferdinand Lassalle, may be summarized as follows: —

The definition and origin of capital are entirely different from the classical explanation. Capital is not simply any instrument of production, but *all wealth which serves to provide its possessor with an income independent of his labor.* We must acknowledge that this definition harmonizes better with the general idea of capital, *i.e.* that which furnishes an income. But it evidently presupposes a specific economic and social organization, especially the fact that wealth may be loaned at interest or may be employed to give work to people who are glad to hire themselves out for wages. Now this particular social organization does not exist everywhere; it is of quite recent origin, and in Europe dates from the sixteenth century. A proof of this lies in the fact that the very word "capital" was not used previously. The ruin of small industry and small farming, the expropriation of the masses, and the creation of a permanent class of wage-workers, — all these things had to be accomplished before capital acquired the power to command the labor of others and to provide its owner with an income not due to any work of his own, unless we regard as work the task of watching over one's possessions and collecting profits.

This is why socialists find the comparison of capital to the bow and arrow of the primitive savage, or to any tool in the possession of Robinson Crusoe, simply ridiculous. Neither the savage nor Robinson could have obtained an income with these implements. Hence they were not capital, according to the socialists, who ridicule what might be called the *naturalistic* concept of capital, and substitute for it the *his-*

torical concept, which regards capital not as a permanent or necessary institution but as the result of evolution. They regard capital as a "historical category" — as Rodbertus would say, — which made its appearance at a definite period of history, and which will disappear in due time.

The violent opposition between these two theories is largely due to the fact that efforts have been made to use them as weapons of social warfare, the first being employed to justify the rôle of capital and the second to discredit it. The first school exclaims: How useful capital is, since even Robinson Crusoe could not have lived without it! And the second replies: What a tyrant capital is, since it lives only on the labor of others! Such arguments as these are ethical in nature, and need not be considered until we reach Book III, on the Distribution of Wealth. The only point which concerns us now is the true function of capital in the production of wealth.

Now there is no necessary contradiction between these two theories, since the one regards capital in its natural, permanent, sociological characteristics, while the other considers its acquired, relative, historical nature. Both may be true, and, in fact, each of them contains part of the truth.

It is certain that the part played by capital has been modified by economic evolution. First it was the simple tool of the manual laborer; later it gradually passed out of his possession and came into that of the wealthy members of society. Whereas it was at first simply an instrument of production, it is now often made an instrument of money-making and the means of obtaining an income without working. This new state of society is what the socialists call "capitalism."[1] But although it may be admitted that

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[1] It has been said that each of the three factors of production has in turn exerted a preponderant influence. In primitive societies of hunter, fisher, and shepherd peoples, nature is the all-important factor. In Antiquity and the Middle Ages labor was the most important factor; in modern industrial societies it is capital.

"capitalism" will some day disappear, capital will still remain.

The definition given by the classical economists is therefore better, precisely because it emphasizes those features of capital that are essential and necessary, while the other definition points out only its accidental and ephemeral characteristics.

The fact that no wealth can be produced without the help of preëxisting wealth is an economic law whose importance cannot be exaggerated. Just as fire cannot be started without the use of some ignited substance, just as an explosive mixture will not explode unless a lighted fuse or similar contrivance be brought near it, just as a living being cannot be produced without the presence of some preëxisting living substance (germ, cell, or protoplasm), similarly wealth cannot be produced, under ordinary economic conditions, without the help of a certain amount of preëxisting wealth which plays the same part as the fuse does in starting explosions. Now it is necessary to give a name to this preëxisting wealth, the function of which is so important and so well-defined. We shall call it "capital." If socialists dislike the name, they have the right to propose another; but as they have not done so, we may for the present retain this one.

II. The Distinction between Wealth which is Capital and Wealth which is not Capital

All wealth must be applied in one of two ways: either to serve for *consumption*, or to serve for *production*.

Wealth serves for consumption when it is used directly to satisfy some of our wants, — to afford us some gratification. It is unnecessary to enumerate the wants and enjoyments for which wealth is used, as an enumeration would have to include all that is placed on our table, or used in our house, or that contributes in any way to our immediate pleasure. But this category of wealth is not the largest; there are other kinds of wealth, incapable of being used directly to provide gratification. Such wealth is employed in the production of consumable wealth, that is, wealth of the first-named kind. This intermediate, non-consumable wealth consists partly of instruments and goods altogether unfit for consumption, partly of raw material which can be consumed (*i.e.* made to provide gratification) only after having undergone certain transformations. This kind of wealth fills our factories, farms, storehouses, and docks. To this whole second group, consisting of wealth not fit or not intended for consumption, we apply the name *capital.*

But the above classification, however simple it may appear at first sight, requires some explanation.

Above all, we must not believe that it is possible to classify all commodities under one or the other of these divisions, by reason of specific qualities inherent in each commodity. Any object having value may become capital, provided certain conditions are fulfilled. The idea of capital does not connote a certain *class* or *kind* of goods, but a certain *condition* or *purpose* of goods. All wealth may at some time or other become capital, just as every physical element may, at a certain degree of temperature, become a gas. The feature, condition, or purpose that makes wealth capital is *its productive use in conjunction with labor.* A diamond in the hands of a jeweller or a glazier, flowers in the possession of a florist, a clown's costume owned by a theatrical director, all become capital, because they are instruments of production. Perhaps it may be objected that they do not produce any new wealth, and are therefore not useful to society. To this we must reply that they are no more and no less useful than the occupations in which they serve as accessories or as raw material. It may be urged, from a moral and social point of view, that the work of jewellers, florists, and actors is useless; in which case we must refer to the discussion regarding the distinction between productive and unproductive labor. These services (of actors, etc.) satisfy a desire and have a value;

hence they are productive in the economic sense of the term, and, consequently, the implements employed in these occupations are also productive in the same sense.[1]

Nor is this all. It should also be noted that some kinds of wealth, even when used not productively but for consumption, may, nevertheless, bring an income to their owner by means of *hire* or *rent;* for example, a rented villa, hired furniture, or money loaned to a spendthrift, or even to a government (which generally offers a still more striking instance of unproductive consumption). Must not wealth, in this case, also be called capital? We do not hesitate to call it capital in everyday language, and we are justified in doing so, provided we are careful to indicate the difference between this kind of capital and the preceding kind by means of some qualification which enables us to keep them apart. As a matter of fact, these kinds of capital are very dissimilar. As the last-mentioned capital is not in the service of labor, it produces nothing of itself, — neither new wealth nor new value. Hence we naturally ask: Whence comes the income which this capital provides for its owner? It comes from the pockets of the borrower or the tenant, who is obliged to procure it by his own labor or by employing some other capital productively. Such capital as this we shall call *lucrative capital.*[2]

To sum up, then, there are three kinds of wealth: —

(1) That which serves only for consumption and which

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[1] Besides, if it were necessary to introduce such non-economic considerations as morality or social usefulness in the narrower sense, it is evident that machines which serve in the production of cannon or armor for cruisers must be declared absolutely unproductive, and it would also be necessary to remove three-fourths of our metallurgical plants from the list of capital.

[2] Boehm-Bawerk, in his remarkable book on "Capital and Interest," approves this classification and terminology; but he also calls productive capital "social capital," and lucrative capital "individual capital." He means that only the former kind is capital for society, the latter being capital solely for the individual. But this terminology is likely to cause error, because lucrative capital cannot be conceived as existing save in society, while productive capital might exist even for a Robinson Crusoe.

is not capital, although it may at any time become capital.[1]

(2) That which, like the preceding, serves only for consumption, but which, nevertheless, gives its owner an income

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[1] In making an inventory of the riches of a country, this wealth is counted as virtual capital. Some categories of wealth have given rise to many controversies.

In ordinary language we designate as "capital" (as opposed to immovable property) all movable or personal values represented by shares of stock, bonds, etc. But these values are only *representative* capital; *i.e.* they represent real capital invested in mines, railroads, industrial plants, etc. We must, therefore, take care not to count them twice in the inventory of a nation's wealth, — once as valuable documents, and again as the really existent wealth which they represent. Often they are really only lucrative capital, in the sense which we have given to this term; that is to say, they do not correspond to any real capital at all; such, for instance, are government bonds.

On the other hand, in ordinary language the name "capital" is never given to immovable property, like land and buildings. As for land, it should certainly not be called capital when we mean unused land as provided by nature, for this would be to confound nature and capital; but whenever land is modified by cultivation, we may well ask whether it does not then fall under the head of productive capital, since it is then a product of nature and labor and undoubtedly serves to produce new wealth.

Buildings are, on the contrary, essentially only objects of consumption, since, like food and clothes, they are products in their final form, having no other purpose than to satisfy human wants. But they may become lucrative capital for their owners if they do not occupy, but rent them; they may even become productive capital if they are not used for habitation but for production, *i.e.* as workshops, stores, etc.

It must be admitted that the above statement has been vigorously denied. Many economists contend that a house, even when used for residence, is always capital, because it always produces an income in the shape of shelter, comfort, and the advantages it gives. But, from this point of view, the armchair in which I sit, the glass of wine which I drink, should also be called capital productive of income, because they render me a service or an advantage. Indeed, some economists have gone as far as this (Walras and Irving Fisher).

What is to be said of money, of coin? For a nation it is always capital. For an individual, it is or is not capital, according to the use made of it. There are, however, authors who maintain that, even for individuals, money is always capital, because it can never be consumed directly, but only after being exchanged for objects of consumption.

derived from the income of others. This we call *lucrative capital.*

(3) That which is actually employed in production, and which we shall therefore call *productive capital.*

In this chapter on production we really have to do only with the last kind of wealth. The other kinds will be discussed in the sections on Distribution.

III. What is meant by the "Productivity" of Capital?

The part played by capital in production has given rise to unfortunate misconceptions. It is customary to say that capital yields an income. This seems to be an essential part of its nature, just as trees naturally bear fruit or as hens naturally lay eggs. Hence the income provided by capital is regarded as a product due exclusively to capital. The spread of this false notion is partly due to the fact that a vast amount of capital is in the form of securities, bonds, or shares, to which coupons are attached representing the interest that falls due every year or every six months. The coupons "grow" in value as time advances, and when the day of payment comes they are detached and collected. Just as a fruit or seed can be sown again to produce new fruit or seed, and just as a newly laid egg can be made to produce another hen for laying more eggs, so these coupons may be used as new capital and invested in such a way as to provide new interest-coupons. Thus it may seem that capital grows and increases according to the same laws as those that govern the multiplication of plants and animals. But the law of *compound interest* (this is the name given to the above-mentioned multiplying process of capital) is even more marvellous than the multiplication of animal organisms. It has been calculated that a single cent, invested at compound interest on the first day of the Christian era, would by now have yielded a value equal to that of some thousand million globes of solid gold as large as the earth.

We must nevertheless abandon the idea of the natural productivity of capital,—an idea which has aroused the more or less justifiable ire of the socialists. This mysterious productive and generative power, attributed to capital as part of its nature, is a pure chimera. Notwithstanding the popular belief to the contrary, money does not produce money, capital does not produce capital. Not only has a bag of money never produced a single cent, as Aristotle remarked long ago, but a bale of cotton or a ton of iron never has produced any cotton or iron. Capital is inert matter, and by itself is absolutely sterile. But when it is put in the service of labor, as we have seen in the preceding chapter, it gives labor a degree of productivity that may be very great. With a horse and plough, a farmer can produce much more wheat than with his manual labor alone. It is this increased or supplementary crop that constitutes the income from capital. It does not arise from the plough; it is due to the man aided by the plough.

What leads us astray is the fact that we see many persons living on their income, and even growing richer, without working. Hence it appears that their income arises from capital, and is spontaneously produced by it. In reality, this income is the product of labor,—labor which we do not see but which is not difficult to find, viz., the labor of those who borrowed the capital of its owner and who employ it productively. There can be no doubt about this. The coupons representing the interest on the bonds of a coal-mining company represent the value of coal extracted by the labor of miners; the coupons of railway bonds represent the result of the labor of mechanics, conductors, brakemen, station-masters, switchmen, etc., who perform the work of transportation.[1]

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[1] It is for this reason that socialists draw the conclusion that the profit given to the capitalist constitutes a social injustice. This may indeed be the case; but it is not necessarily so, for we have shown that without the aid of wealth, labor is doomed to remain sterile. Consequently, every laborer who has not the good fortune to possess wealth is obliged to borrow it in some way or other; and it seems natural and legitimate that he should pay for its use.

It is, however, possible that the capital in the hands of the borrower has been dissipated or consumed unproductively. In this case the interest received by the lender does not represent the product of the borrower's labor, but the labor of some other person whose identity is still to be sought, but who nevertheless exists somewhere. The coupons of government bonds, for example, do not represent wealth produced by the labor or industry of the state, since the state produces but little and is even in the habit of expending unproductively the greater part of the capital lent to it; but these coupons do represent the labor of all the citizens who each year pay into the public coffers taxes which, in the form of interest, pass into the possession of the creditors of the government. So also, when a young man borrows money to spend foolishly, the interest which he pays to the money-lender certainly does not represent the product of his own labor, but perhaps that of the workmen in his employ, or of the farmers on his estate.[1] (See what we have said regarding lucrative capital, on page 122.)

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[1] Boehm-Bawerk, in his explanation of the nature and function of capital, points out that the ultimate purpose of production is to furnish goods for consumption, and that this may be done in two ways: *directly* and *indirectly*. The direct way is immediately to unite the forces of nature with our own efforts, and thus produce what we want. The indirect or roundabout way is first to produce means of production, *i.e.* such tools or devices as will ultimately augment our productive powers. Take, for example, the case of a thirsty farmer; he may go to the neighboring spring and drink out of the palm of his hand whenever he is thirsty. This method, however, is inconvenient; he must go several times each day, and he cannot hold much water in the palm of his hand. He may stop to make a bucket, and thus take away enough water to satisfy his thirst for a whole day. But, in order to do this, he must first get the wood and devote several hours to cutting it into shape. There is, however, even a more roundabout but more perfect process. The farmer may cut down a number of trees in the forest, make wooden pipes of them, have them carry the water to his house, and in this way procure a constant stream of water at his very door or within his house. The last process is of course the longest and most roundabout method, but it is ultimately the best; it is production *by means of capital*, capital being the name of the intermediary products by means of which we ultimately obtain, under more favorable conditions, the things we want.

IV. The Durability of Fixed and of Circulating Capital

Capital may last for a long or a short time. According to its duration it will serve for a larger or smaller number of productive acts. Capital which can be used only once, because it is consumed in the act of production, is called *circulating capital;* examples of this kind of capital are: the wheat that is sown, manure that is mixed with the soil, coal that is burned, cotton that is spun. Capital that can be used to serve for several productive acts is called *fixed capital;* it may include the most fragile implements, such as needles, and the most durable kinds of wealth, such as canals or tunnels, which last as long as the world.[1]

Whenever it can be done, there is great advantage in employing capital of long durability. However considerable may be the labor required by its production, and however slight may be the labor saved each year by the assistance of this capital, there must necessarily come a time, sooner or later, when the labor saved will equal the labor originally expended. When this point is reached, and when — to use the customary expression — capital is "redeemed," the labor subsequently economized will be a net gain for society; from that time onward, and for the whole period of its duration, the service rendered by capital will be gratuitous. The progress of civilization tends always to replace capital of less durability by capital of greater durability.

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[1] It should be pointed out that Adam Smith, who first used these terms, "fixed" and "circulating" capital, used them in a somewhat different sense. He understood by circulating capital that which provides an income only by circulating, *i.e.* by changing hands, by being exchanged (*e.g.* merchandise and money). By fixed capital he means that which returns an income without being exchanged, and which stays in the same hands (*e.g.* a factory). This definition seems scarcely satisfactory, since it would lead us to declare that coal burnt by a manufacturer in his furnaces is fixed capital (since it is not intended for sale) whereas houses owned by a building society that buys them to sell would have to be regarded as circulating capital. In other words, for Adam Smith the essence of circulating capital lay in the *change of ownership;* in the definition we have adopted, it is to be found in the *change of nature.*

Three points, however, should not be overlooked: —

(1) The formation of very durable capital generally requires an amount of labor proportionate to the increased durability. A certain equilibrium must therefore be sought between the labor-cost of the capital and its durability. We may say in general that the increased cost in labor usually is not so great as the gain in durability; it is this circumstance that makes the use of such capital profitable.

(2) The formation of fixed capital demands the present and immediate sacrifice of a large amount of labor and other commodities, while the remuneration anticipated in economized labor or economized expense is more or less distant in the future. The return for capital, moreover, is all the more distant when it is of great durability. Take a concrete example. If the construction of a canal, such as the Panama Canal, is to cost $140,000,000, and the time for the repayment of this sum is fifty years, we must compare these two items: on the one hand an immediate expenditure of so large a sum, and on the other hand a remuneration for which we must wait half a century. Now to make any such comparison as this, considerable foresight and not a little boldness are necessary. It requires, moreover, firm faith in the future. These are qualities that are found only in highly civilized communities. Peoples whose social state is not advanced and whose political organization affords but little security, rarely employ large amounts of fixed capital; all their wealth takes the form of articles for consumption, or of circulating capital.

Even under the most favorable circumstances, the faculty of foresight is limited. An individual, a company, or even a government, would not consent to advance capital which will not be paid back for two centuries, although it may be certain that this capital could last for a thousand years and consequently render gratuitous services for eight hundred years

Why? Because results that are not entirely attained for so long a period as this, do not fall within the scope of human predictions. As a general statement of fact we may lay down the rule that capital which is not repaid in the course of a generation is regarded as poorly invested.

(3) It must finally be pointed out to the disadvantage of fixed capital that, if its durability is too great, it runs the risk of becoming useless. Therefore great prudence should be exercised in our estimate of future results. The mere material *durability* of capital is not nearly so important as the period of its *utility*. We can generally tell how long a tunnel will last, but we do not know how long traffic may be expected to continue taking the route that leads through the tunnel. Utility is very unstable; what at one time is regarded as the most useful of goods or institutions may at a subsequent time no longer be so regarded. Suppose we have built a canal, and before the capital sunk in it has been redeemed, traffic may have taken another route; in this case a certain quantity of labor will have been uselessly expended. Aware, then, of our ignorance of the future, it is prudent not to build for all eternity. The creation of too durable capital must be regarded as ill-advised.

V. How Capital is Formed

Capital, being always a product, or, as Boehm-Bawerk says, an "intermediary product," can only arise, like every other product, from the two original factors of all production: labor and nature. All the kinds of capital that we can think of — tools, machinery, works of art, and materials of all classes — can have no other origin but this.[1]

There would be no need to stop and discuss so clear a matter as the formation of capital, if the attempt had not been made to base the formation of capital on a new agent, of a special nature, called *saving*. It is a popular bit of wisdom that we can grow rich only by means of labor and saving. We already know what labor is. But what is saving, this new element that is now introduced? Is it a third original factor of production, that we have neglected to mention? Certainly not, as labor and the forces of nature are the only conceivable creators of wealth.[1] Is it, then, a form of labor? Some have maintained that it is. But what is there in common between labor and saving? To labor is to act; to save is to abstain.[2] It is hard to conceive how a purely negative act, simple abstention from using, could *produce* anything. And when Montaigne declares that he knows "no action so potent and effective as this inaction," this may be true from the moral point of view, but it does not explain how inaction can create even the least valuable commodity. When wealth is said to have been created by saving, do we mean that if this wealth had been consumed as soon as it was produced, it would not now be in existence? If so, it is a self-evident fact familiar to everybody. If a child asks where chickens come from, and we answer that in order to produce chickens we must refrain from eating eggs, this reply may be excellent advice, but it is an absurd explanation. The reasoning which regards saving as the original cause of the formation of capital seems hardly more satisfactory: it amounts to saying that non-destruction is one of the causes of production, — an extraordinary sort of logic.

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[1] Karl Marx called capital "crystallized labor." His phrase would be accurate had he not, in adhering to his principle that all value springs from labor, purposely omitted the part played by nature in the formation of capital

This strange idea must have been occasioned by the use of money. To save, in modern societies, means to put aside a certain amount of money. Now the man who puts a handful of coins in a safe certainly does not create either wealth or capital (he really withdraws some wealth from circulation), but since each coin represents a claim to a certain amount of existing wealth, it is evident that whoever accumulates these coins is putting aside for future use a certain amount of wealth quite as real as though he produced it by his labor. But this is a purely individual point of view from which to consider saving.

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[1] Senior and some other economists expressly state, however, that the three agents of production are labor, natural agents, and *abstinence*.

[2] The opinion that saving is a form of labor is held by Courcelle-Seneuil; but as he admits that the only object of the theory is to justify the social function of capitalists and the services they render, we need not stop to discuss it.

It is impossible to name a single kind of wealth in society that has been created by saving. The stone axe cut by quaternary man was not the result of saving; probably he was just as little able to reduce his consumption as the workingman of to-day who earns just enough to keep from starving. Not by reducing his consumption, but because of a particularly successful hunt, providing an unusually large food-supply, was he enabled to create his first capital. Is it reasonable to suppose that in order to pass from the state of hunters to that of farmers it was necessary for a nation first to save enough food to last a whole year? Nothing is less probable. Hunting peoples simply domesticated their cattle, and with cattle as capital they first obtained the leisure necessary for undertaking agricultural labors that extend over long periods of time. But, as Bagehot pertinently inquires, how does a herd or flock represent abstinence? Has its possession entailed privations on the part of the owner? Certainly not, since the milk and the meat have fed him, and the wool and the hide have clothed him, better than he was fed or clothed before.

It must not be supposed that we mean to question the merit or the virtue of saving. But although saving plays a part, and an important one, in consumption, we do not perceive what it has to do with production. It should be studied in its proper place. Probably no one would ever have thought of regarding saving or abstinence as one of the factors of production, had it not been felt, mistakenly, that this theory was necessary to justify the payment of interest for capital.

PART II. THE METHODS OF PRODUCTION

CHAPTER I — THE ORGANIZATION OF PRODUCTION

I. The Stages of Industrial Evolution

BESIDES its other merits, the historical school may claim the credit of having discovered and outlined the successive types of industrial evolution.[1] It is customary to distinguish five types or periods: —

(1) The *home economy or family economy*. This system prevails not only in primitive societies but even in those of antiquity, and extends as far as the first period of the Middle Ages. Under this system the people are divided into small groups, each one of which is independent of the others from the economic point of view. Each group suffices unto itself, consuming hardly anything but what it has itself produced, and producing almost nothing beyond what it will consume. Exchange and the division of labor exist only in an embryonic form. (See the pages on the History of Exchange and of Labor.)

Each group consists of a family. The term "family," however, must be taken in a wider sense than it now possesses. Not only was the patriarchal family itself much larger, but it was made to include many other persons, — slaves or serfs, — who were regarded as belonging to it. In Rome slaves were legally designated as *familia*. The residence of the wealthy Roman landowner, having an army of slaves engaged in all kinds of labor, as well as the manor of the mediæval baron with his serfs, both belong to this economic period.

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[1] More detailed outlines of the economic evolution of society may be found in these books: Thurston, "Economics and Industrial History"; Buecher, "Industrial Evolution"; Henry Dyer, "The Evolution of Industry."

(2) *Corporative economy*, or the *guild system*.[1] This system makes its appearance in the Middle Ages and is characterized by a very important feature, viz., the separation of *trades*. The worker, at least in the towns, is autonomous; generally, he owns the raw material, and produces with the aid of tools that are his own property. He has become what is called an artisan. Ordinarily, he works only "to order," producing such goods as are requested in advance by his customers; or, at least, he produces only for the small local market of the town in which he lives, — a market which he jealously guards. He is associated with other workmen of the same trade, in a kind of league for mutual assistance and defence, and together with these associates he helps form those corporations or guilds which played so important a part in the economic, and even in the political, history of the Middle Ages.

(3) *Domestic economy* (which must not be confounded with the home or family economy). The workmen in the guilds little by little lose their independence. Instead of producing directly for their customers or for the public, they now produce for a wholesale dealer. They work at home, and sometimes — not always — still own their tools and the raw material. But they no longer own the finished product; that

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[1] Between these first two systems, the German school of economists, especially Schmoller and Buecher, introduce another which they call the system or period of *hired labor*, — in which the laborer, who was only partly independent, usually worked in the house of the consumer with raw material that was provided by the latter. This state of affairs was similar to the present habit of some small artisans who wander about from house to house, or the present custom among dressmakers in countries where they work in the homes of the persons who employ them.

Although this system seems to have continued several centuries in Germany, before the establishment of the guild system, and is very interesting as a transitional step, it does not appear ever to have been sufficiently predominant to be regarded as a distinct stage of economic evolution.

belongs to the dealer. Why is this intermediary, the dealer, interposed between the worker and the public? Because the little town market has been destroyed and has perforce given way to the national market; and because the workers of the guilds were too poor, too unenterprising, and produced at too great a cost to obtain control of this enlarged market.

(4) *Organized manufacture*, or the workshop economy. The intermediary or industrial organizer now brings his dispersed workmen together in one place. Thus he gains several advantages, principally that of an extensive division of labor, which increases productive capacity and at the same time reduces the cost of production. (See the section on the Division of Labor.) Henceforth, the worker owns neither the raw material nor the implements of production; he no longer works at home, but has become a wage-worker, an *employee*, while the intermediary who possesses all these things has become an *employer*. But productive power has thus been increased to a remarkable degree.

This transformation began to take place about the sixteenth century. It was not, however, without a struggle that the more perfect organization of manufacturing industry eliminated the guilds and conquered the markets which were closed to it by the guild regulations. In France the intervention of the government was necessary to accomplish this change. During the ministries of Sully and of Colbert the government founded manufactories possessing special privileges, and some of these establishments have remained state concerns ever since then (*e.g.* the Gobelin manufactory of tapestries). In England the destruction of the guild system was brought about chiefly by the exportation of goods on a rapidly increasing scale to foreign countries and British colonies.

(5) *Machine industry* or the *factory system.*[1] This is the system which marks our own epoch. It began with the

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[1] M. Vandervelde, a Belgian economist, suggests the name "machinofacture" as opposed to the preceding type of "manufacture." Etymologically, "manufacture" means "to make by hand." Now it has come to mean

application of steam to industry and transportation.[1] It has carried productive power to its maximum, but has for the most part only emphasized the features of the preceding period, among which are: the grouping of large numbers of laborers, night work, the quasi-military organization of labor, the employment of women and children.[2] As this system requires constantly increasing amounts of capital for its successful continuance, it perpetuates what the socialists

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precisely the opposite. The word "factory" originally was merely an abbreviation of "manufactory." Four bases of distinction between manufacturing and the hand trades have been suggested by various writers; namely, the use of power, the use of machinery, production for the general market, and production under a system of division of labor. All of these are undoubtedly characteristics which are usually associated with manufacturing, but no one of them alone sufficiently defines the word. The twelfth census of the United States regards standardization as the true criterion for manufactures, as opposed to hand trades. This term, "standardization," applies to all operations which produce "standard" products; that is, similar products which conform to a general demand. Tailoring and custom shoemaking, for example, are not standardized, for dissimilar articles are produced, each being suited to the taste and need of the individual consumer. But the manufacture of ready-made clothing and shoes is standardized, for here the products all conform to a single standard, even the variations for sizes being standard variations.

[1] The remarkable improvement in methods of transportation, which we shall refer to later in this book, and the invention of a multitude of mechanical devices for increasing productive power, have together effected so complete a change in the economic life of mankind during the past century and a half that historians have designated it as the "Industrial Revolution."

[2] In 1870 the number of persons engaged in gainful occupations in the United States was 12,505,923; of these the females were 1,836,288, *i.e.* one-seventh of the total number of females ten years of age and over. In 1900 the whole number of persons engaged in gainful occupations was 29,074,117, and of this number 5,319,912 were females, being one-sixth of the females ten years of age and over. In the mechanical and manufacturing industries 2.53 per cent of the workers in 1870 were women, whereas in 1900, 4.65 per cent were women.

Despite various forces tending to restrict the employment of young children, and frequent misrepresentation regarding the age of employees, the census figures indicate that in 1870, 13.19 per cent of the total number of children ten to fifteen years of age, inclusive, were at work; in 1880, 16.82 per cent, and in 1900, 18.23.

call the régime of *capitalism*. This system has many grave defects, which form the subject of complaints that are too often justified. Among its objectionable features are: the frequency of accidents; the chronic unemployment and involuntary idleness of large numbers of laborers; overproduction and the crises it involves; the creation, at one end of the social scale, of colossal fortunes, and, at the other end, of a famished laboring class often forced to sell its labor for a crust of bread, — while between these two classes there is a special category of property owners called stock-holders, which at first sight it is difficult to distinguish from simple parasites. All these objectionable features of capitalism will be discussed hereafter in greater detail.

It is a mistake to suppose that each of the economic systems outlined above did away entirely with its predecessors. We can only say that each of them in turn predominated. Even to-day, although the factory is the characteristic method of industrial production, we can still find traces of the home economy, — where, for example, the peasant's wife spins the flax that serves to make the household linen; and although guilds have now disappeared from the European cities in which they once held sway, there are still many artisans, occupied in various trades, who work principally for customers that order goods in advance, just as in the Middle Ages.

It also goes without saying that we still find considerable production outside of the factories and other large industrial establishments, but it is especially "domestic economy" that has survived and that now, curiously enough, tends again to gain ground. In the large cities some important industries — especially tailoring — are carried on almost entirely in this way. This strange revival of a former industrial system is due probably to the recent intervention of the legislative authorities, which have laid down certain rules for the conduct of labor in larger industrial establishments. As these labor laws apply especially to factories, many industries find that, by having the work done in the homes of the laborers, they can easily escape legal surveillance.

We might be disposed to believe that this change is a fortunate one, and that the workman is happier and more free when he works at home, at times that best please him, and in the midst of his family, rather than in the industrial barracks known as "factories." Experience, however, proves that this is not the case; that, quite to the contrary, the worst kind of exploitation takes place by the method of domestic production, to which nowadays the characteristic name of "sweating system" has aptly been applied. In this form of industrial organization the workman is not only robbed of the protection of the laws concerning hours of labor, the work of women and children, necessary hygienic precautions, etc., but he is also entirely in the control of intermediaries or contractors, who are interposed between him and the large manufacturer, and who deprive him of part of the gain which his toil should bring him. He is, moreover, constantly exposed to the imminent danger of losing employment, and to the risk of irregular work; for whereas the proprietor of a factory, unable to close it without great loss, prefers to work at a small loss rather than allow his enormous capital to lie idle, the contractor under the sweating system has no care of this nature.

II. How Production is Regulated

Economic equilibrium exists when wealth and services are produced in just the quantity necessary to meet the demand. Not to produce enough is an evil, since a certain number of wants will be unsatisfied. To produce too much is another evil, perhaps not so great as the former, but none the less real. Every excess in production necessarily involves not only a waste of wealth, but also a useless expenditure of energy, and consequently unnecessary toil and trouble. A state of health in the social body, as in the human body, consists in the perfect equilibrium of production and consumption.

When each man produces what he consumes, as in the first stage of economic evolution, described above, the equilibrium is maintained easily enough. To a certain degree, each individual, and each small family group, is able to foretell the wants of the immediate future, and although this prevision may not always be strictly correct, production can be regulated accordingly. But when division of labor and exchange have been introduced, the problem is more difficult, for then it is necessary to foretell the wants of others,—a more complex matter than to foretell our own wants. Yet the problem is not very difficult when laborers work "to order," for then each consumer declares what he wants. Nor is the problem very difficult in small industries; the baker can estimate pretty accurately the number of loaves that will be sold in a day.

But the problem really becomes complicated in an economic society like our own, in which the market is immense, and in which a great number of industries produce their goods in advance without awaiting orders, and where commerce — especially speculative commerce — anticipates the wants of society.

Political economy, especially classical political economy, teaches that production is regulated surely, rapidly, and automatically, by the law of supply and demand, operating by virtue of this principle: "Things are worth more or less according to the insufficiency of their quantity for the satisfaction of our wants." If it should happen that any branch of industry is not sufficiently provided with labor and capital, the want which it is designed to satisfy is not fully met, and the goods which it produces acquire a higher value. The producer, particularly the industrial manager who is the principal guide of production and the first person to profit by a rise in prices, realizes greater gains. Attracted by the prospect of gains higher than the average, other producers —

capitalists and laborers — engage in this favored industry. In this wise the production of goods is increased until the quantity reaches the amount desired by the public.

When, on the other hand, any commodity has been produced in quantities exceeding the need, its value must fall. This fall in value reduces the income of the producer, and particularly the profits of the industrial manager, who must directly bear the consequences. He will not continue an industrial policy that means loss or failure, and the production of this particular commodity is slackened until the output has fallen to the level of the amount consumed.

In these oscillations the value of all goods tends constantly towards a *fixed point*, just as a pendulum in motion tends to a vertical position, or as water seeks a perfect level. This fixed point is determined by the *cost of production*, a term which designates the sum of values, in goods or in services, consumed in the production of a commodity, and which includes: the wages of labor, interest, insurance, the renewal of capital, the cost of transportation, taxes, and the price of the raw material (which is in turn made up of the elements just enumerated).

When the value of an object is equal to its cost of production, it is in the position of equilibrium; we say that its value is *normal*.

The conception of the mechanism of production outlined in the above paragraphs is one of the celebrated "economic harmonies" of Bastiat and the liberal school, according to which all productive activity regulates itself automatically. But for the economic mechanism to operate thus admirably in actual practice, many conditions are necessary that are but rarely fulfilled. The supply must respond immediately to the demand, and the demand must immediately take advantage of the supply; the factors of production must be absolutely mobile; they must change their position with electrical rapidity, abandoning the employments in which they are superabundant, and taking up those in which they are insufficient. This theory of automatic equilibrium, moreover, presupposes a single market embracing the world, or at least markets that are closely united, like communicating jars of water, so that whenever the equilibrium is disturbed it is almost instantaneously reëstablished. The economic world is evidently tending toward just this state of affairs; but it is yet far from having realized it.

Now farming and even manufacturing — in fact all production — presupposes that capital is engaged in it for a greater or less time,[1] and that, being *fixed*, it is no longer transferable at will from one productive branch to another. Suppose, for instance, that a wine-raiser produces too much wine, and feels that he should turn his attention to the production of something else. We are told by the liberal economists that the law of supply and demand (which in his opinion may hardly be regarded as either "harmonious" or "beneficial") will *oblige* him to do this. But what is he going to do with the thousands of dollars of capital invested in wine-raising, and consisting of vineyards, wine cellars, etc.? Much of this capital lies irretrievably buried in the soil, and he cannot afford to abandon it.

Supply and demand, even where they operate most freely, do not always bring about a distribution of products and services that is for the best interest of society. This is strikingly true of trades and professions. The most useful vocations — for example, farming — tend to become abandoned, while others that are least productive, like store-keeping and saloon-keeping (not to mention the government service), are sought with great persistency, and the number of persons engaged in them increases at an amazing rate.

Is this, then, an exception to the law of supply and demand? Certainly not. The law applies here, as elsewhere, but absolutely without regard for *social usefulness*. Indeed, we have already explained that value is entirely independent of social utility, and that it depends on human desire, which is an entirely different matter. Between the scale or order of real wants, such as a moralist, a statesman, or a hygienist would draw up, and the scale of economic values, there is no uniformity, no parallelism whatever.

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[1] See the section on Fixed and Circulating Capital, page 127.

For this reason it was thought formerly that the distribution of trades, professions, and occupations should not be left to the law of supply and demand. The old industrial systems, based on slavery or castes or guilds, all possessed the common feature of regulating, by right of laws or of heredity, the number, duties, and rank of those engaged in various occupations, and of subjecting them to certain restrictions. The predominant principle was that no one could enter any trade or profession without the authorization of the government or of the guild.

It is well known that the French Revolution put an end, by law, to trade corporations or guilds, and proclaimed the principle of the *liberty of labor*, by which no one should be prevented from engaging in any trade whatever. This reform was welcomed throughout Europe and soon imitated by almost all western nations.

The principle of free labor must be maintained because it is an essential part of human liberty; it should be made to penetrate even those fields of activity in which it does not yet prevail. But it is perfectly natural that unregulated production should overthrow the perfect adjustment of production to consumption[1] and cause those disturbances of the economic equilibrium which are called *crises*.

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[1] It has, nevertheless, been objected that there were more famines in those days than now, although the production of wheat, and trade in it, were hedged about by a multitude of regulations. (In some places it was even forbidden to substitute wine-raising for wheat-growing.) We must acknowledge that free competition has indeed rendered great services in the production of wheat, because this is one of the few cases in which the theoretical state of free competition has in fact been nearly realized; the wheat market is almost the ideal of a world market, and would even more closely approach this ideal if protective duties did not place obstacles in the way of free competition.

III. Crises

The automatic regulation of production just explained, which is founded solely on free competition, is very uncertain. It is subject to disturbance, — even frequent disturbance. Whenever the proper equilibrium is disturbed, we say that there is a *crisis*.

Crises have often been called the diseases of the economic organism; their nature is as varied as that of the innumerable ailments that afflict mankind. Some are periodic, and others are wholly irregular. Some are short and violent, like attacks of fever; others are slow, "like anæmia" — to use M. de Laveleye's phrase. Some are confined to a particular country, others are epidemic and travel round the world.

Some economists have attempted to construct a general theory of crises, and to describe the laws that determine them.[1] Such attempts must be regarded as premature. We may of course discover common characteristics in crises, and find them related to a single fundamental cause such as that which we have already mentioned, viz., a sudden disturbance, of the economic equilibrium, either in the production of many commodities or in the production of a single very important commodity, such as wheat, capital, metallic money, or credit instruments. In each of these cases, which we now purpose to investigate, the disturbance of equilibrium is due to a *glut* or a *dearth* of goods. It would seem that a dearth of goods is much more dangerous than a superabundance, and yet, as we shall see presently, the latter is more dreaded, except in the case of a superabundance of money.

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[1] Stanley Jevons undertook to do this. After carefully describing crises, he concluded that they took place periodically, — once every ten years. Since the beginning of the nineteenth century he found that there had been nine crises, in the years 1815, 1827, 1836, 1839, 1847, 1857, 1866, 1873, and 1878. This recurrence is due, according to Jevons, to an analogous repetition of bad crops, which is in turn caused by the recurrence, every ten years, of spots on the sun! In this manner the problem of crises and their periodicity is reduced to a problem of astronomy.

An excellent history of the theories regarding crises is given by von Bergmann, "Geschichte der nationaloekonomischen Krisentheorien," Stuttgart, 1895. Consult also: Jones, "Economic Crises" (Macmillan, 1900); de Laveleye, "Le marché monétaire et ses crises"; Juglar, "Des crises commerciales et de leur retour périodique."

(1) *A general glut or scarcity of products.* A general glut is one of the most frequent forms of economic crises, and may even be regarded as a kind of chronic ailment, a sort of constitutional infirmity, of modern industry.[1] The development of large-scale production, modern inventions, and means of transportation have enabled industry to throw such enormous masses of products on the market that consumption cannot always keep pace with production. This is not because men's wants are small or limited in number, — for we know that they are great and that they are even capable of unlimited increase, — but because the sale of an article does not depend solely on the number of people that desire it but on the number of *those that have the means of buying it.* Now the increase in income of the bulk of the population usually has not been so great as the growth of manufactures. Moreover, nearly all countries now seek to close their markets to foreign products, and at the same time try to introduce their own products into other lands. Thus products are by various devices kept out of certain markets and confined to others, as though accumulated in closed reservoirs. Producers, therefore, in order to find an opening for their goods, and to have them gradually absorbed by consumption, are obliged to lower prices and to decrease their output for a while ; this general fall of prices means, for the employers, lower profits or failures, while for the laborers it means lower wages or loss of work.

Crises caused by the inverse difficulty (scarcity of goods) may in certain cases be quite as formidable. We need only refer, as an example, to the so-called "cotton famine" which resulted from the American Civil War, and which, because of the lack of the necessary raw material in many European cotton mills, led to the discharge of large numbers of workmen and the ruin of many manufacturers of cotton goods. A bad harvest of cereals may cause terrible famines in poor countries like India or Algeria; even in wealthy countries, such as those of western Europe, a slight deficiency in the supply of wheat always provokes some sort of a crisis.

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[1] The collectivists attach great importance to this kind of crisis, which in their opinion constitutes, properly speaking, not a crisis but a necessary consequence of the present capitalistic régime, and which, being a cause as well as an effect, must inevitably involve the complete overthrow of our modern industrial organisation.

It may even happen — although the event appears paradoxical — that the crisis due to a dearth of some one commodity will produce the same results as a crisis due to an excess in production, namely a general glut of the market and a depreciation of commodities. A shortage in the wheat crop, for instance, causes a rise in the price of wheat; hence all consumers of wheat whose means are limited, that is to say the great majority of people, are compelled to lower their expenditures for all the other articles which they purchase. In this way there is a mass of goods that no longer finds purchasers, and that can be disposed of only at a loss, or must be kept unsold. This curious state of affairs is illustrated by famines in India, which generally cause a crisis for English manufacturers.

(2) *A glut or a dearth in some factors of production.* A disturbance of the proper relative quantities of the factors of production is still more frequent and even more grave than a disturbance of the equilibrium among products themselves. In no productive enterprise can the factors of production be brought together in a haphazard, reckless fashion, *i.e.* without due regard for their proportion to each other. The chemical law of so-called "definite proportions" reigns in this field quite as fully as in chemistry; M. Walras and M. Pareto call it the "law of the coefficients of production." Successful production always requires a certain amount of land, a proportionate amount of labor, and a proportionate quantity of fixed and of

circulating capital. These productive elements, it is true, may to some extent be substituted for each other; but not *ad libitum*. Often there is too much or too little of one of these elements, — not enough labor or capital for the land at our disposal, or, inversely, not enough land to keep busy all the laborers or to use all the capital, or, perhaps, more capital than is required by the number of laborers employed, or *vice versa*.

The amount of land in a country is limited by nature; to increase it is beyond the power of man. The number of laborers depends on the laws (only imperfectly understood) of population, and hence may also be said to have certain limits. But the quantity of capital does not seem to have any limit at all. In advanced countries where incessant saving accumulates increasing quantities of wealth, where all normal chances of profit have been seized, and the opportunities for further investments tend to decrease, capital must ultimately be accumulated in huge quantities. Naturally this abundance causes a fall in the rate of interest,[1] and men try to devise more profitable investments; new enterprises are begun, either abroad or at home, some of them of an extraordinary nature, and some altogether absurd, until finally

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[1] There is, however, a difference between commodities and capital; although the glut of commodities lowers prices and ruins producers, a glut in capital, on the other hand, raises the value of capital and momentarily enriches the capitalists. This result, which at first seems singular, is not difficult to explain. The fall in the rate of interest changes the basis of capitalization for the future, but the capital already invested profits necessarily by this circumstance.

An example will make this clearer. Suppose that to-day the rate of interest is 5 per cent. Stock which yields an annual income of $10 is therefore worth $200. Suppose that to-morrow, by reason of a glut in capital, the rate of interest for new investments falls to 3 per cent. Then the stock which brought an annual income of $10, and which continues to bring that amount, is worth $333, since 3 per cent of $333 is $10.

The result of this strange circumstance is that although merchants complain of a glut in commodities, capitalists rejoice in a glut of capital. The fortunate position of capitalists who have already invested at the old rate cannot, however, continue forever; either some crisis will lower the value there comes what in stock-exchange language is called a "crash." Many of these industrial collapses are sadly prominent in the economic history of recent years, especially those of 1819, 1837, 1857, and 1873 in this country, and those of Vienna in 1873 and Paris in 1882.

The opposite state of affairs is also possible, namely insufficiency of capital, which may follow such crashes as those we have just mentioned, or which may be due to the use of vast amounts of capital in a costly war. When capital is insufficient, there may also be a crisis, but one marked by conditions opposite to those set forth above, namely by a rise in the rate of interest and of discount, and difficulty in obtaining money.

Finally, there may be a disturbance of the normal proportion between fixed and circulating capital, the amount of circulating capital being relatively insufficient. This has happened in countries which, having imprudently devoted all their savings to the construction of railroads, have nothing to spend in developing their industries and consequently no traffic for the very railways they have constructed.

(3) *Excess or scarcity of money.* Although money is really only a commodity, yet it plays so important and characteristic a part in economic life, that every departure from the normal amount of it will affect the whole economic mechanism.

Can an excess of money, like an excess of other commodities, cause a crisis? The general public would regard the fear that there might be too much money as absurd, and refuse to admit that it may involve a crisis. But it cannot be denied that there is a certain proportion between the amount of money that ought to be in circulation in a coun-

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of their investment, or the changed rate of interest will be sooner or later applied to their investments also — when the time comes for returning the borrowed capital. Ultimately, the abundance of capital must necessarily reduce the power of capitalists.

try, and the needs of that country; if the amount is suddenly increased, a crisis results. The crisis takes the form of a general rise of prices, and has very serious consequences for all consumers, particularly for creditors and persons living on fixed incomes.

It may be said, of course, that when we have to do with metallic money, especially with gold, it is easy for a country to dispose of its excess, and that it is in the very nature of things for the excess to vanish. But this is not true when the money is paper money or even bank notes. (See, below, the section on Paper Money.)

A diminution in the quantity of money is regarded by every one as a danger, and always occasions great alarm. This alarm is, no doubt, partly due to certain preconceived false notions regarding the part played by money; yet it is not entirely unfounded.[1] When the balance of trade has long been unfavorable to a country, and its reserve of coin is not large, a time comes when it no longer has enough money. Then the cash reserves in the banks diminish, exchange becomes unfavorable, the rate of discount is raised, and many merchants, unable to meet their engagements, become bankrupt. Such conditions as this are called *monetary crises*. They are the most dangerous of all, for they seem to possess a thoroughly epidemic character; but they have also been most carefully studied, and their arrival can be most readily foreseen and therefore most successfully forestalled. (See the section on Rises in the Rate of Discount.)

IV. Overproduction and the Law of Markets

The fear of an excess in production, of a *general glut*, is a nightmare that haunts the minds of all business men. The feeling is not hard to understand. Every producer, observing that his goods sell the better the scarcer they are in the market, naturally concludes that scarcity is a good and abundance an evil.

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[1] M. de Laveleye regards this as the sole fundamental cause of crises. Many economists thought that the last European crisis, *i.e.* the depression of prices during fifteen years, was due to the scarcity of gold. This question is discussed by Hector Denis, "La dépression des prix."

The economists of the classical or optimistic school do not like to admit the possibility of any discord in the economic harmony which they never tire of explaining and glorifying. They are unwilling to acknowledge that crises are consequences of economic liberty. They have long tried to prove that the steady increase of products is advantageous not only for the consumers — for that goes without saying — but also for the producers themselves. Of course they do not undertake to prove that there cannot be an excess of production in a particular industry, nor that such an excess is anything but a misfortune. But they maintain that, when there is a glut in any branch of production, the best remedy consists in a proportionate increase in the production of other goods. The crisis resulting from abundance can, they claim, only be cured by abundance itself, according to the celebrated motto of the homeopaths — *similia similibus.* Hence all producers are interested in making production as abundant and as varied as possible. This theory, known as the law of markets (*la loi des débouchés*), was first promulgated by Jean Baptiste Say, who was very proud of it and who asserted that it would change the policy of all nations. It may be summarized as follows: Every commodity will find a sale more readily with every increase in the variety and abundance of other commodities.

To understand this theory, let us leave money out of consideration, and suppose that products are exchanged directly for products, as under the system of barter. Take a trader arriving at one of the great markets of Central Africa. Is it not advantageous for him to find the market fully supplied with numerous commodities? Of course he does not care to find the market fully supplied with the *particular commodity* that he has to offer, say muskets, but he does want to find the greatest possible quantity of all other goods, — ivory, gum, gold-dust, etc. Every new commodity that is put on the market means a greater possibility of disposing of his own commodity, or, as this theory puts it, an *additional market* for his goods. The more *other* goods there are for which he can exchange *his* goods, the better are his chances of disposing of them. And if our trader has unfortunately brought too many muskets, he hopes that others have also brought too much of their goods to the market; in this case muskets are no longer in excess, as compared with other goods; and as J. B. Say remarks, "What best favors the sale of one commodity is the production of another."

The same thing, we are told, takes place under the system of exchange by means of money. The greater the resources of all *other* persons, the better is the opportunity that each of us has of disposing of his goods or his services; and the quantity of my resources depends on the amount I have produced. The best we can wish for a person who has produced a commodity in excess, is that all other producers have done the same; the abundance of one commodity is counterbalanced by that of other commodities. If, for example, England has produced too much cotton goods, and India has simultaneously produced too much wheat, there is no danger that England will be unable to dispose of her cottons.

Again, let us suppose (a supposition which coincides with present conditions) that industry, thanks to the marvellous increase of productive power, throws an enormous quantity of manufactured goods on the market. The result is a general glut. Why? Because agricultural production has not kept pace with manufacturing; it has increased only slightly, and consequently the value of agricultural goods has, compared with the value of manufactured goods, increased. In this case the consumers, who are obliged to spend more for their food-stuffs, are unable to purchase many manufactured goods. But if agricultural production progresses as rapidly as manufacturing, the equilibrium is again established; the consumer, spending less for his food, will readily purchase the excess of manufactured goods.

Notwithstanding these circumstances, and even supposing that all products without exception increase in quantity, there may still be a fall in prices and consequently a general glut. For our hypothesis, as above stated, did not include an increase in the *amount of money*. Therefore the value-relation between money and commodities in general has changed. Since money is scarce, prices fall. But if we could increase money in the same proportion as other commodities, the evil would be removed, for then the relation of values — called *price* — would not have changed, and the crisis would not take place. We may, therefore, declare that even this hypothesis confirms the economic law of markets. To sum up, then, we may say that the theory of markets simply shows that there is no danger in an excess of production *whenever the increase takes place simultaneously and proportionately in all branches of production.* It is perfectly evident that in this case the relations between the quantities exchanged are exactly the same as before, although the total quantities have increased.

Unfortunately, the increase of production never takes place under the conditions required by the theory of markets. There is not one chance in a million that an equal increase will ever occur simultaneously in all branches of production. Production increases by sudden leaps and by local, intermittent changes. Besides, before we can make any practical use of the law of markets, nations must tear down the walls of protective duties which prevent an excess of commodities in one country from pouring out into other countries and thus establishing a level in the universal market.

This is why these disturbances of equilibrium in exchange, these crises which we have analyzed, remain an inherent evil of our economic organization.[1] This is also why producers nowadays seek to regulate production by means of commercial agreements known as trusts and pools, — perhaps the most interesting economic phenomena of to-day. Sometimes, it is true, these combinations undertake to limit the quantity of a commodity on the market in order simply to raise its price quickly. In this event they are speculative schemes, very much like that which, under the guild system, was called "engrossing"; to "engross" meant to buy up the entire supply, or so much of it as not to allow other persons to get what they needed. Generally, the members of these modern combinations agree not to produce beyond a certain limit; in this case their influence may be beneficial. (See the section on Large-scale Production.)

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[1] The collectivist school of socialists regards overproduction as an inevitable consequence of the exploitation of laborers. The working-classes, they

V. Competition

The law of supply and demand, to be true in practice, requires freedom of labor; and freedom of labor in its active form is called *free competition*. Competition, then, appears to be the great regulator of the whole economic mechanism of modern society. It was formerly customary in most treatises on political economy to enumerate the advantages of free competition and the disadvantages of monopoly. It was generally agreed to attribute to competition the following good results: —

(1) It adapts production to consumption, and thus maintains the *economic equilibrium*.

(2) It gives a great impetus to production, stimulating *progress* by means of rivalry, and effecting in the economic

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declare, are robbed by the capitalists of about half the product of their toil, and, therefore, with the wages they receive, are unable to buy back the product of their labor. Hence the glut. If the workers received what is due them, and their powers of consumption were thus made equal to their powers of production, there could be no more crises.

This explanation does not seem quite satisfactory. Even granting the fact of spoliation, such spoliation would mean that the power to consume has simply been transferred from one class to another; and it is difficult to see why the spoliators should not consume as much as the despoiled.

domain a kind of natural selection like that prevailing in the organic world.

(3) It causes a gradual lowering of prices and tends to *cheapen goods* in the interest of all persons, — particularly that of the poorer classes.

(4) It effects a *progressive equalization of economic conditions* by reducing profits and wages to nearly the same level in all industries.

Economists of the optimistic school, such as Bastiat, delight in singing the praises of the "harmonies" evolved by free competition, which they regard as no less marvellous than the harmony Pythagoras believed he heard descending from the skies. They regard the economic order based on free competition as "spontaneous" or "natural," and conclude that it is both perfect and permanent in character.

This enthusiasm has been considerably dampened in recent years. A more attentive observation of facts and of the actual effects of free competition has not justified the blind faith in it. We have learned that the present economic organization is no more and no less natural and spontaneous than any preceding economic system, such as the family economy, the caste system, or the guild system; for these forms too were the natural result of historical evolution. And as for the beneficent effects of competition, it must be confessed that they too are somewhat questionable, in view of certain facts that stare us in the face: —

(1) Free competition does not regularly assure the equilibrium between production and consumption; there are even times when it threatens to disturb this equilibrium. (Consult the preceding section on Overproduction.)

(2) Although free competition generally stimulates production by keeping up a rivalry among producers, it is in other respects (for example, with regard to the *quality* of goods) harmful to production. Each competitor, in order to triumph over his rivals, endeavors to substitute cheap materials for better and more costly ones, so that as far as

progress in production is concerned the most striking result of keen competition is, perhaps, the adulteration of goods. Adulteration has now become a veritable art that takes full and immediate advantage of all scientific discoveries.[1]

The monopolist, on the other hand, generally finds it to his advantage to sustain the superior quality of his products; he even takes pride in keeping his goods up to a high standard, in order to increase the reputation of his firm.

(3) Free competition does not always guarantee cheapness, and in many cases may even cause high prices. It is true that competition, wherever it operates thoroughly, tends to bring the value of all goods down to the cost of production. But there are many instances in which it *raises the cost of production*, and consequently the price of the product. This paradoxical result is attained whenever there is too large a number of producers in any branch of industry. The case of bakeries offers a striking example. The number of baker-shops is ridiculously excessive. As each of them sells less and less, because of the competition among a large and increasing number of shops, each is obliged, in order to cover expenses, to charge more for each article sold. A newly arriving competitor cannot lower prices, as they are just high enough to permit the old producers to gain a livelihood; his entrance, on the contrary, will raise prices, since still another producer must be supported by the same quantity of sales.[2]

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[1] Instances of this state of affairs are innumerable. Wine can now be made without grapes, jam and preserves without fruit and without sugar, butter without milk, and eggs without hens. At Lyons, France, silk goods are made that contain only 5 per cent of silk and 95 per cent of mineral substances.

If competition, or, in general, the struggle for life, guaranteed the triumph of the most moral, the most devoted, and the most unselfish persons, then it would truly be a means of progress and real selection. But in reality it only assures the victory of the strongest and most cunning, and thus may entail a veritable moral retrogression, for men are obliged, as the proverb says, to "howl with the wolves."

[2] Formerly, the number of bakers was regulated in each city according to

On the other hand, the system of monopoly does not mean the arbitrary rule of the monopolist. Prices are, under this system, no more arbitrary than under that of free competition; for in both cases prices are subject to the general law of values, the price of an object always being limited by the desire of consumers for that object and the sacrifices they are ready to make to procure it. Without entering into the difficult question of the determination of prices under a system of monopoly, we may remark that every monopolist finds it to his interest to keep prices reasonably low, on the principle of "small profits and large sales."[1]

(4) Free competition does not necessarily cause an equalization of profits and of wealth; for competition is essentially a kind of warfare which means the triumph of the strong and the ruin of the weak. Can it be said that political wars have resulted in equalizing the political power of nations, or that vital competition — known as the "struggle for life" — among plants and animals has developed all of them to the same degree? Similarly, those countries in which industrial competition is most free and most vigorous, *e.g.* the United States, are those in which the most colossal fortunes are found.

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population, and bread was relatively less dear than to-day. In Paris thirty years ago there was one baker to every 1800 inhabitants; to-day there is one for every 1300, and if we count the branch stores, one for every 800. In order to earn a living they must make a profit of one cent per pound of bread; this is the amount indicated by the official price lists. The great coöperative bakeries can cover their expenses with one-fourth this gain.

No one has denounced the evil effects of free competition, or the paradoxical result that it has in raising prices, with more animation than Fourier. But even John Stuart Mill, whose energetic statement in favor of free competition we have quoted, also recognized (in a declaration made before a commission of the House of Commons, June 6, 1850) that the middlemen obtain an extravagant part of the total produce of social labor, and that "competition has no other effect than to share the sum total among a larger number and thus diminish the portion of each, rather than to lower the relative part obtained by this class in general."

[1] The formation of trusts in this country has in some cases raised prices; but in the best-managed monopolies, prices are probably no higher than they would be under competition. See *Jenks*, "The Trust Problem," pp. 130–170.

(5) Lastly, the most unexpected result of free competition is that it is not a permanent state, as experience shows that it tends to destroy itself by giving rise to monopolies! Because of the gradual elimination of smaller enterprises and the triumph of the large ones, competition tends to cause the formation of giant enterprises that seek to suppress, and that actually succeed in suppressing, all competition. The great capitalistic leaders in each branch of production endeavor to form gigantic combinations, of national or even international importance, called "trusts" in this country and "Kartellen" in Germany. These combinations despotically control an entire branch of production, at least for a time, and become, so to speak, states within the state. They arouse the distrust of governments, which consequently intervene by means of regulatory laws or taxes, and which, in some cases, take charge of these enterprises themselves and thus transform private monopolies into public ones.

The economic evolution which is taking place at the present time appears to involve these three successive stages: (*a*) competition among small producers; (*b*) the monopoly control of large producers; (*c*) regulation by law. This development, which would lead straight to collectivism, or at least to state socialism, is fortunately not inevitable. We can very well conceive, and we are already beginning to realize, a system in which mutual agreement — between workmen and employers through the medium of organizations of both, and between producers and consumers by means of coöperative associations — will do away with most of the evils of competition without placing free enterprise under the yoke of governmental regulation.[1]

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[1] Aside from economic arguments there are also moral and philosophical considerations which lead us to the belief that coöperation is destined more and more to take the place of competition. Even in biology there is a new school that inclines to the belief that association may be a cause of progress and improvement of the species quite as powerful as the competition emphasized by Darwin and Spencer. Consult *Geddes*, "The Evolution of Sex."

CHAPTER II — ASSOCIATION

I. The Successive Forms of Association

"TO-DAY, Good Friday," wrote Fourier in 1818, "I have discovered the secret of universal association." This was a boast, for Fourier, although he set forth the principle of association with remarkable vigor, certainly did not discover it. Association is not the kind of phenomenon that requires discovery; it is perfectly patent to everybody. It is probably the most general of all the laws that govern the universe, since it is manifested not only in the relations among men living in society, but also in those that govern the planets of the solar system, those that unite the molecules of inorganic matter and the cells of organisms, as well as those that rule human thought. Even the lower animals are familiar with the laws of association, and some animal "societies," — those of the bees, ants, and beavers, — have long been an inexhaustible topic of study and admiration.

Association is absolutely necessary for every enterprise that is too great for a single person, even though it be the mere lifting of a weight. The word association to-day almost inevitably suggests the thought of *voluntary* grouping. But this is a mistake. Association among men was first the result of *instinct* (as among animals), then of *coercion*, and only recently, at least in the economic domain, has it become the result of *contract*. Even now it is not entirely contractual.

The most natural and probably the very first form of association was the union of sexes and the family which resulted from it. It may be objected that this association has no economic character. That would be an error, for it appears that marriage, or rather the household, was at the outset an association of distinctively economic character. If we should ask an American Indian why he gets married, he would reply, "Because our wives go after wood, water, and food, and carry all our baggage." It is even very probable that the economic aspect of marriage gave it the permanent character which sexual instinct or even parental instinct would have been powerless to impart. The clan, and all forms of primitive political and economic association the origin of which is still clouded in mystery, probably originated in some kind of blood-relationship.

Association next became coercive, in the form of slavery. We have already said that slavery must be considered simply as a widening of the primitive family, due to economic causes, chief among which was probably the need of a more powerful association. At a time when wives were won by conquest and capture (as in the traditional rape of the Sabines), there is nothing surprising in the fact that conquest should serve also to annex alien workers to the family. Ordinarily, captured members of foreign tribes finally became adopted members of the family, as one may readily observe in the Greek tragedies of 2500 years ago, or in the accounts of travellers who have visited modern Morocco.

It was by means of this enforced coöperation that the ancients were enabled to erect the Cyclopean walls and the Egyptian pyramids, and to propel galleys having three or four banks of oars.

Association gradually became semi-coercive even among savages. During the Middle Ages it adopted innumerable and complex forms, which we cannot pause to describe now. Finally, it was transformed into association under the leadership of *employers*. In all modern societies, production is carried on by *private enterprises*, using this term in its technical sense to signify groups of persons in which one individual — the employer — furnishes capital, tools, and land, while the others — who are hired for wages — provide the labor.

Is this form the last, is contractual association the terminating-point of social evolution, and, aside from some minor details which perhaps require improvement, the permanent form of productive organization? Such is, indeed, the opinion of the classical school. But we must deny that the present form of association is founded on free contract. The laborers who work in the factory are, to be sure, free men, — free to come and to go at their own choice; yet it is true that we have here only an imperfect form of free association, and the most conclusive proof of this lies in the fact that neither in law nor in everyday speech do we use the word "association" when speaking of the union of employers and employees. Perhaps our application of the term to this relation has already surprised the reader. The union of employer and employees is, however, an association in *fact*, but not in *law;* it is an association *in production, but not in distribution.* The workers have no feeling whatever of being "associated" with the employer in a common undertaking. This is, as we shall see, precisely the gravest defect of the wage system. (See the section on the Wage System.)

But legislation now tends to give the wage system the character of a real contract, — when, for example, it calls upon the workmen to participate in the preparation of "workshop regulations," or when it awards damages for breaking the contract of hire. Employers and workers also tend toward this conception by founding organizations and institutions that we shall describe further on. (See Book V.) We therefore have the right and the duty to hope that association under the leadership of employers will in turn give way to more thorough and complete association, *i.e.* free and real association, that shall include distribution as well as production, and in which each party shall have not only a clear consciousness that he is a member of a collective undertaking, but also the firm resolution to work in harmony with the other members. It is for this reason that the concerns in which true or contractual association is practised between capital and labor — although thus far they occupy only a microscopically small place in our economic system — should be regarded as representing the superior phase toward which social evolution is moving.

II. The Association of Capital

From what we have said, it follows that the truly free association of laborers has scarcely yet been tried. The same statement cannot be made with regard to the association of capital. When businesses are conducted on a large scale, — and we shall see in the next section that such is the present tendency, — one man cannot usually furnish all the capital that is required, or even the capital that is needed to employ the requisite number of laborers. For this reason several capitalists unite in order to furnish the necessary capital, and the enterprise is launched in the form of a so-called "stock company," — a new form of business that is rapidly gaining ground in commerce and industry.[1]

A stock company offers great advantages, precisely because it is exclusively an association of *capital*. Of the three instruments of production, — land, labor, and capital, — the last most readily admits of association, because it possesses certain characteristics to a far greater degree than either land or labor, namely *divisibility* and the *facility with which it is moved* from one place to another.

There is no natural limit to the divisibility of capital; hence each capitalist may restrict his share in a business enterprise and limit his risks as best suits him. This feature explains the success of stock companies. When each share costs only $100 (or in some associations only $5), each person may buy exactly according to his wealth or his degree of confidence in the enterprise.[1]

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[1] The important and predominating position of the corporation in American manufactures at the present time is revealed by the census statistics for manufactures. While only 40,743 of the 512,254 establishments reporting in 1900 were organized into corporations, they nevertheless produced $7,733,-682,531, or 59.5 per cent of the total gross value of products. These organizations comprise nearly all the great manufacturing enterprises of the country.

Moreover, the marvellous facility with which capital is transported is increased every day by the development of credit institutions and devices. Laborers, as well as landowners, in their efforts to coöperate productively, are obliged to choose a certain locality, and can bring together only those persons that live in a particular part of the country. Labor is not easily moved from one place to another; land cannot be moved at all. But capital has wings, so to speak, and can fly from the most distant parts of the earth to such places as offer the most profitable investment.

But, on the other hand, this form of association involves such grave disadvantages that we can hardly agree with those economists who regard it as the coming form of business enterprise. The very fact that *it associates only capital and not persons* is a sign of inferiority. The associates, called stock-holders, do not know each other, and often have no further knowledge of the enterprise than that given in the share certificates stored in their safes.[2] A stock company consists of two groups of persons: on the one hand those who share the profits of an enterprise in which they do not work, and on the other hand those who work in an enterprise the profits of which they do not share. This situation is hardly compatible with our idea of justice, and, even from the economic point of view, involves a singularly unstable state of affairs. (See Book V, on Distribution.)

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[1] Industrial associations offer the capitalist the choice of receiving a fixed income or of sharing the risks of an enterprise; they offer him either bonds giving the right to the regular receipt of a fixed sum, or stock that represents shares of property and confers the right to a proportionate share in the risks and profits of the business.

The divisibility of capital furthermore permits capitalists to undertake colossal and very hazardous enterprises that otherwise would be impossible. No capitalist, however wealthy he may be, dares to provide the millions necessary for building an Isthmian Canal. The risk is too great. But there are many capitalists who are each willing to incur a small part of the risk; and when the risk is thus distributed, the failure of the project can entail the ruin of only those few who have risked large amounts.

[2] Many capitalists who try hard to get hold of the mining stock of Wittwatersrand, Klondike, or Sosnowice, would be embarrassed to locate these places on the map. Assuredly, the bond of association which unites them to the men that work in these mines is of a rather fictitious nature.

III. Large-scale Production

The organization of production under the control of employers, and particularly by means of the association of capital, is both the evidence and the indispensable condition of the most characteristic change of modern times, viz., the passage from production on a small scale to production on a large scale.[1]

In the closing years of the nineteenth century this kind of organization has taken such enormous dimensions as to attract public attention and arouse public anxiety. Manufacturing syndicates tend to obtain control of an entire branch of industry in a country and even in the whole world. In the United States, where they have developed most remarkably, they are generally called *trusts*, and the same name has been adopted elsewhere. We hear of them constantly. Scarcely a day passes but the newspapers announce the formation of a new one. There is the oil trust (regarded as the first), the coal trust, the steel trust (with a capital supposed to reach $1,500,000,000), the coal trust, the tobacco trust, the whiskey trust, the writing-paper trust, the copper trust, and very many more.[2] Even governments have been alarmed at their power and increase, and have adopted legislative measures to curb them, — measures which generally have proved ineffective.

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[1] The Baldwin Locomotive Works, of Philadelphia, employ 13,500 persons, and build from 30 to 35 locomotives per week, or one locomotive every four hours. The Krupp steel works at Essen employ over 20,000 workers. The United States Steel Corporation has 158,000 employees, according to Professor H. L. Nelson, in his article on "The So-called Steel Trust," in the *Century Magazine* for December, 1902. There are hundreds of enterprises, — factories, railroads, electric traction companies, etc., — each of which employs several thousand workers. Some of our railroads have over 30,000 employees.

[2] English newspapers report the existence of a "Bible Trust," some prin-

Yet the trusts have found defenders. Many persons regard them as the preliminary steps toward a new industrial régime which will put an end to present ill-regulated production, by establishing a proper equilibrium between production and consumption; this will result, they maintain, not so much in the rise of prices as in assuring the regularity of profits and wages. At all events, trusts seem to be successful in preventing those crises of overproduction to which we have referred.[1]

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cipal book dealers having formed a syndicate to raise the price of Holy Scripture 15 per cent.

In a list of trusts and combinations in this country, given by Byron W. Holt in the *Review of Reviews* for June, 1899, there are about one hundred and twenty corporations of this kind, each having a capital of ten millions or more. About one-half of these were formed in 1899.

The *Journal of Commerce*, in its year-book for 1899, published a list of 353 trusts and combinations existing in March of that year, with an average capitalization of $17,000,000 and a total capitalization of $5,832,882,842.

Moody's *Manual of Corporation Securities* for 1902, an accepted authority in financial circles, gives a list of consolidations or trusts, with a capital of $10,000,000 and over, which have been formed since January 1, 1899. This list contains 82 companies, with a total capital of $4,318,005,646. The same authority may be quoted to the effect that "a complete list, without regard to date of formation and including both large and small, would probably aggregate 850 going combinations, and would easily foot up over $9,000,000,000 of capitalization. Including railroad consolidations, such a list would make a total of over $15,000,000,000 outstanding capitalization."

[1] A *trust*, as popularly understood, is a consolidation, combine, pool, or agreement of two or more naturally competing concerns, with the purpose of fixing prices or rates in any industry or group of industries. Generally, the trust endeavors to regulate the price and the quantity of the output. The customary form now is that of corporate consolidation, in which competing producers give up their autonomy and transfer the ownership of their plants in exchange for shares of stock in the consolidation.

Trust literature, which is quite extensive, includes a number of interesting books, among which mention should be made of the following: W. M. Collier, "The Trusts," New York, 1900; von Halle, "Trusts or Industrial Combinations in the United States," New York, 1895; Jeans, "Trusts, Pools, and Corners," London, 1894; Jenks, "The Trust Problem," New York, 1900; George Gunton, "Trusts and the Public," New York, 1899.

Now the evolution which is taking place round about us is not merely the result of a kind of fatality; it is due to the fact that it offers, from the viewpoint of production, certain incontestable advantages. What are these advantages? First of all, only large-scale production permits of certain undertakings which, because either of their size or of the time they require, far exceed the power and the lifetime of an individual.

Even in those enterprises, moreover, which would not actually overtax the capacity of an individual, collective production possesses a marked superiority. By grouping all the factors of production, — manual labor, capital, natural agents, and situation, — it economizes them; that is to say, the same amount of wealth is produced at a less cost, or, what amounts to the same thing, more wealth is produced at the same cost. The various economies of large-scale production are entitled to separate consideration: —

(1) *Economy of labor.* This advantage is due above all to the possibility of introducing a more perfect division of labor, as we shall see presently. But it is also a result of simply bringing the laborers together. In small-scale production much time is lost, and some of the workers are obliged to be frequently unoccupied. Take for instance a hundred business houses, each of which employs ten men, and merge them into one large establishment. It is evident that in order to do the same amount of work as was done before, it will not be necessary to retain all the employees. There will be no need for a hundred cashiers or a hundred bookkeepers. As each employee will now be able to work continuously, he will be able to do two or three times as

and especially the Report of the United States Industrial Commission, Volumes 2, 13, and 18.

Interesting descriptive articles on the principal American trusts are published in the *Century Magazine*, beginning with the number for November, 1902. An illustrated history of the Standard Oil Company, by Ida M. Tarbell, was begun in the November number, 1902, of *McClure's Magazine*, and continued through several subsequent numbers.

much work, and consequently will take the place of two or three men working under the old system.

(2) *Economy of place.* To obtain a hundred times more room in a store or factory, it is not necessary to have a piece of ground a hundred times as large, nor to purchase a hundred times the amount of building material. Simple mathematics shows that when the volumes of two cubes are as 1 to 1000, their surfaces are as 1 to 100; and it is the surface that costs most. Everyday experience, moreover, demonstrates that the cost of a building or the rent of a store does not increase in direct proportion to the surface occupied. The smallest stores on the business streets of our large cities pay a comparatively high rental; but the large "department stores," many of which transact a hundred times as much business as the average small store, certainly do not pay a hundred times as much rent.[1]

(3) *Economy in natural agents.* A powerful steam-engine consumes, relatively speaking, far less coal than a weak one.[2] Electric lighting is more economical than gas illumination when used for a large area, but it is exceedingly dear when used on a small scale.

(4) *Economy of capital.* Take a large store transacting a hundred times the business done by a small one. It does

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[1] The greatest department store in Paris evaluates its rental at $200,000 a year, and transacts business to the amount of $30,000,000. Stores that transact business to the amount of $30,000 a year certainly pay more than a proportionate sum — $200 — annually for rent.

The business of several American department stores amounts annually to from $7,500,000 to $15,000,000. The mail-order business of one great store amounts to $900,000 a year. On the busiest days fully one hundred thousand persons visit each of the largest stores in New York, Philadelphia, Chicago, and Brooklyn. One firm spends more than $300,000 a year for advertising. Single departments in several stores sell more than $2,000,000 worth of goods annually. Consult the interesting article by S. H. Adams on "The Department Store" in *Scribner's Magazine* for January, 1897.

[2] M. Achard, in an article in the *Revue d'économie politique* for September, 1890, calculates that one horse-power will cost eight cents when produced by a five horse-power engine, five and one-half cents when produced by a ten horse-power engine, two cents when a fifty horse-power machine is

not need to keep on hand a hundred times the goods kept in stock by the small store; probably ten times the amount is sufficient, except that it must be renewed ten times as often as in the small store. The large store, therefore, can do a hundred times as much business with only ten times as much capital. The consumer, moreover, is better satisfied, for, in consequence of this frequent renewal of stock, the goods are newer and more fashionable.

Again, merchants or manufacturers who buy on a large scale can secure better bargains; they obtain greater discounts and are better able to pay in cash, or, at least, do not require long credits before they can pay bills.[1] Hence the large stores or manufacturers that buy in large quantities make more effective use of their capital.[2]

used, and only one cent when produced by engines of above one hundred horse-power capacity.

[1] Small stores, which require considerable time to dispose of their stock, necessarily have a much larger share of their capital "tied up." A typical example of the disadvantage of the small store is offered by the sale of cheap non-copyrighted books; the small store can afford to buy them only in small quantities of a few hundred at a time, whereas the larger establishments, purchasing entire editions of ten or twenty thousand, can often sell them at a lower price per volume than that paid by the small dealer himself.

The capital stock of the greatest Paris department store is but $4,000,000, and the annual dividend averages $1,500,000, that is, about 40 per cent on the capital, and about 5 per cent on the total sales. It is no infrequent occurrence for the entire stock of a department to be sold out and replenished twelve times in a year.

Concerning the better paying facilities of great businesses, a man who conducted one of them is quoted to the effect that "the profits of the department store are represented by the cash discounts on its bills."

An interesting series of articles describing the most typical of American great businesses is given in *Scribner's Magazine* for 1897.

[2] Besides the advantages of large-scale production here enumerated, economists have pointed out the following: —

1. Large concerns can more easily experiment with new methods, and with new machinery which is sometimes too expensive for a small establishment.

2. They can best utilize a multitude of by-products. In refining petroleum, for instance, material which was formerly wasted is now utilized for the production of lubricating oil, naphtha, and paraffine.

3. They can effect large savings by carrying on allied or subsidiary pro-

IV. Is the Tendency toward Large-scale Production Inevitable and Desirable?

If the evolution which we have just studied should continue in the future, it would involve the gradual disappearance, from the economic field, of all those persons who work under their own guidance, — small artisans, small shopkeepers, small landholders, and all other *autonomous producers*. These persons, now economically their own masters, would become *employees*, *i.e.* wage-earners, working for immense enterprises directed by capitalists possessing millions, or for stock companies consisting of persons whose names are not publicly known.

This prospect is agreeable to many economists and to all collectivist socialists. The latter especially declare that this evolution is inevitable, and ridicule every effort to put hindrances in its way. They rejoice at every successive step by which small industry gives way to large concerns, and individual production tends toward large-scale collective production, because they consider these steps as mile-posts marking our progress on the road that leads straight to collectivism.[1]

They profess, moreover, a sovereign contempt for small production and individual enterprises. "This system," says

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cesses. Large sugar refiners, for example, import their own raw sugar, own their own wharves and warehouses, and make their own barrels and boxes.

4. They more readily acquire a wide reputation, and can more easily attract customers by means of advertisements, efficient and specialized service, and conveniences for customers which would be impossible in a small business. Some of the large department stores now have elegant waiting-rooms, bureaus of information, post offices, and telegraph offices.

[1] A vigorous but remarkably fair statement of the collectivist position on this point is given by the Belgian socialist, Emile Vandervelde, in a book entitled, "Le Collectivisme et l'Evolution Industrielle," Paris (Bellais), 1900.

The tendency toward concentration into large establishments is probably most manifest in manufacturing. Interesting data regarding this tendency may be found in Vol. VII of the Twelfth Census. On page cccxvii the statement is made that the total number of manufacturing establishments increased

Karl Marx, "excludes concentration, coöperation on a large scale, the extensive use of machinery, the wise rule of man over nature, agreement and unity in the purposes, the means, and the efforts of collective activity. It is compatible only with a rudimentary state of production and society. To perpetuate such a system of isolated production would be to decree mediocrity in all things."

We cannot accept this sweeping condemnation. The system of small-scale production, or rather that of small independent plants, would, we believe, be conducive of social peace and favor a more equitable distribution of wealth. Its simplicity would preclude most of the conflicts that now arise among the different classes of participants in production, and especially the bitter conflict between labor and capital. It would not establish the rule of absolute equality, fortunately; but it would cause no other inequalities than those due to differences in the productive power of land and of the other instruments of production, or inequalities that are inherent in all the actions and devices of man. Even from the productive point of view, small production is not so impotent or out of date as it is supposed to be. Independent small producers may associate and adopt some of the processes of large-scale production, as well as a more extended division of labor, without sacrificing their autonomy, their initiative, or their personal interest (all of which are powerful incentives to production, and always liable to be somewhat attenuated by collective enterprise).

In agriculture, for instance, small farms are not absolutely

101.8 per cent between 1880 and 1900, while the total value of products increased 142.2 per cent in the same interval.

The application of motive power has greatly increased the productivity of many establishments. In 1890, 28.3 per cent of the manufacturing concerns of the country used motive power; in 1900, 33.1 per cent. Still more striking is the increase of average horse-power per establishment: in 1880 it was 39.7; in 1890, 59.1; in 1900, 66.7. In the twenty years from 1880 to 1900, therefore, there was an increase in the average power per establishment of twenty-seven horse-power, or 68 per cent.

incompatible with association, nor even with the introduction of processes of large-scale cultivation. Small farmers may associate with one another to apply to their lands all the improved methods of farming, to purchase or hire machinery or other modern devices in common, to buy fertilizer, seeds, and plants in large quantities, to transport and sell their products at common expense, and to borrow capital. Indeed, all these things are already being done — on a small scale, it is true, but with increasing success — by farmers' syndicates, granges, etc.[1]

It must, nevertheless, be conceded that association among land-owners, whenever, extending beyond the effort to do a certain amount of business in common, it also undertakes the common cultivation and management of farms, presents very grave difficulties. Indeed, such productive associations can be formed with advantage only for farms that are contiguous. Close neighborhood among farmers is generally more liable to give rise to lawsuits than to facilitate association. The jealousy of farmers is proverbial.

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[1] There have been many attempts at association among the farmers of this country, although most of them were of short duration. (See the articles on Coöperation, Farmers' Alliance, Farmers' Movement, and on Grangers in the "Encylopædia of Social Reform," edited by W. D. P. Bliss.)

In France, the so-called agricultural syndicates number about three thousand, and many of them have more than eight thousand members each. They have already introduced important reforms in the agriculture of the country. They contribute to the education of French farmers by publishing numerous journals, by propagating new processes, and by establishing experimental farms. They have attempted the sale in common of some commodities, such as wine, vegetables, and fruit, and even tried the production in common of some goods; the latter scheme has thus far succeeded very well only in the manufacture of cheese and butter. These organizations encourage cattle-raising by buying breeders of pure stock. They have endeavored to create banks for mutual credit, and a law has been passed recently in France to facilitate this movement. They unite to form powerful federations and unions that sometimes cover an entire farming district of the country.

The rapid and remarkable development of these associations in France has given rise to ambitious hopes for the future, and some persons regard them as the beginning of a peaceful social revolution that will bar the way to socialistic revolution. (Consult Rocquigny's "Les Syndicats agricoles.")

Farmers' associations are quite as fully developed in Germany, Denmark, and Belgium. In Germany the wine-raisers on the banks of the Rhine have carried out a scheme for making their wine in common. In Denmark the entire agriculture of the country has been transformed by the coöperative dairies, which have succeeded in driving French butter out of the English market.

But among those that work in manufactures association will perhaps be easier. Coöperative association, — under the different forms of productive associations, societies for the purchase of raw materials or for the sale of finished goods, or societies for mutual credit, — aided by the mechanical inventions that are substituting electric power for steam, and enabling us to transport motive power from the place of its generation to the place of its application, will permit numerous new forms of industrial enterprise capable of resisting successfully the encroachments of large-scale industry. Devices for distributing motive power place small producers nearly on a plane of equality with large concerns, as regards the cost of power.

Besides, it is by no means certain that large-scale production has no limit. It is probable, on the contrary, that it cannot go beyond a certain fixed point. The growth of social organizations, like that of living organisms, seems to be restricted by nature within certain bounds. Some department stores, such as exist in the largest cities, appear already to have attained a state of development that is nearly permanent. Perhaps an economic reason for this may be found in the fact that, beyond a certain point, the general expenses of large stores are proportionately increased rather than diminished. Thus there is a limit to the size of business enterprises.[1]

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[1] Some authors contend that the economy of large-scale production is often counterbalanced by nearly equivalent disadvantages and expenses, such as expensive advertising, the cost of surveillance, leakage, and wastes.

President John Converse, of the Baldwin Locomotive Works, is authority for the statement that these works have reached the limit of economy and efficiency in production; machinery, space, and labor are as fully

At all events, evolution toward large production does not proceed with equal rapidity in all fields of economic activity. It is far advanced in transportation, a trifle less so in manufactures, still less in commercial enterprises, while in agriculture it is scarcely perceptible. Certainly it cannot be said in any part of Europe that small farming is giving way to farming on a very large scale. Collectivists, to be sure, who agree in this point with most economists of the classical school, maintain that this is only an anomaly, an accident, a simple delay in evolution, due to the routine character of agriculture. They point particularly to the example of the United States, where agriculture in the West is practised on a large scale, and ask: Is not this the reason why American farmers defeat European competitors even in European markets?

But the example of the United States proves nothing against our thesis. The colossal farms of this country, although they have the advantage of producing wheat at a low cost, have the disadvantage of giving relatively small crops. Crops of wheat on the "bonanza" farms rarely exceed thirteen bushels an acre, whereas inferior land in France yields an average of twenty bushels.[1] Extensive culture is made possible in the United States by the relative cheapness of land and the sparseness of population. But when the population will have become as dense as that of France it will be necessary to increase the crops by giving

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utilized as possible, and there would be no proportionate gain in increasing any of these productive factors. In other words, it would be more profitable to duplicate the plant on another site than to double the present equipment.

A summary of the advantages and disadvantages of large-scale production is given by Bullock, "Introduction to the Study of Economics," §§ 100–103, and in Leroy-Beaulieu's "Économie Politique," Vol. I.

Production on a small scale, its present status and future prospect, are discussed from the standpoint of a Catholic reformer in Victor Brant's "La petite Industrie contemporaine," 2e édition, Paris, (Lecoffre), 1902.

[1] The census of 1900, Vol. VI, p. 29, gives some interesting data regarding this point. The great western wheat-producing states employing large-scale methods of farming are Minnesota, South Dakota, North Dakota,

up the methods of extensive farming, and by concentrating labor and capital on smaller areas.[1]

The essential fact that should never be lost sight of is that although large farming involves some economy in general expenses and particularly an economy of labor, it has, on the other hand, the great twofold disadvantage of diminishing the number of producers, and, quite as often, of reducing the quantity of products when compared to the surface culti-

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Kansas, and California. Intensive, small-scale methods, on the other hand, are used in the New England states, whose soil, moreover, is naturally less fertile than that of the western farms.

	Average acres per farm reporting	Average value per acre	Average bushels per acre
Kansas	63.7	$5.03	10.2
South Dakota	95.7	5.26	10.5
North Dakota	134.5	7.13	13.5
California	212.9	7.52	13.6
Minnesota	52.0	7.71	14.5
New Hampshire	1.7	12.65	14.9
Connecticut	1.8	15.47	22.0
Rhode Island	1.9	16.33	20.7
Maine	2.0	16.11	17.5
Massachusetts	2.0	15.95	18.4
Vermont	2.0	16.19	19.3

[1] The census of 1850 reported 1,449,073 farms in the United States, and that of 1900 reported 5,739,657, — an addition of 4,290,584 in fifty years. The same period witnessed an increase in the national population from 23,191,876 to 76,303,387, and a growth in the cities (of over 8000 population) from 2,897,586 to 25,031,505. Notwithstanding this unprecedented growth in urban population, the increase in the number of farms was relatively greater than that of the total population, being in the ratio of 4 to 3.3. If we consider the population outside of cities, the following figures are obtained: In 1850 there was one farm for every 14 persons, and in 1900 one farm for every 8.9 persons.

As regards the average size of farms the official figures are as follows: In 1850, 202.6 acres; 1860, 199.2; 1870, 153.3; 1880, 133.7; 1890, 136.5; 1900, 146.6. But it must be observed that the very large farms are confined almost exclusively to the western and central states.

vated. It may give a *greater net product*, *i.e.* greater profit to the landowner, but it generally yields a *smaller gross product*, *i.e.* less food and less wages for the nation. Now in view of the increasing density of population in all civilized countries, the future will belong to the system of farming that can give the greatest quantity of food. Here we find another proof, and the explanation, of the law mentioned when we referred to the area required by various types of society to produce their food-supply, viz., that the necessary area is reduced as we proceed from the hunting stage to the pastoral, and from the pastoral to the agricultural. In the agricultural period itself, there is the same progress from "extensive" to "intensive" farming, and from intensive farming to garden-farming such as is practised to-day wherever population is most dense, *i.e.* in the suburbs of large cities. Garden-farming, in the vicinity of Paris, where fruit and vegetables are raised by hothouse processes that resemble the methods used for raising flowers, is said to yield from $2000 to $3000 worth of vegetables per acre, or enough to provide food for twenty or twenty-five persons. In China, a system of very elaborate intensive garden-farming enables the soil to nourish a very dense population. Here, then, are many reasons for thinking that the prophecies of the socialists and of some economists regarding this matter (the sole point upon which they agree) may be found wanting in accuracy. The future probably belongs to small farming rather than to large-scale agriculture. The earth will some day be covered with small garden-farms, and the philosophical maxim of Voltaire's Candide, "Everybody will cultivate his own garden," will be realized in the field of economics.[1]

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[1] One circumstance that gives rise to the illusion concerning the natural superiority of large-scale agriculture is the intellectual superiority almost always possessed by the administrators of large farms; the great farms are better kept, and exemplify the latest agricultural improvements. We consequently attribute to a difference of agricultural system what really is due only to the greater energy and intelligence of the persons in charge.

CHAPTER III — THE DIVISION OF LABOR

I. The Successive Forms of the Division of Labor

ASSOCIATION, of itself, means nothing more than the grouping of individual forces, each person performing the same operation; this may be called *simple coöperation.* But the term "division of labor" implies a distribution of the work among the associated persons in such a manner that each performs a different operation; this may be called *complex coöperation.* If the work to be done is very simple, — like digging, lifting, rowing, or wood-chopping, — it is difficult to divide the work into several operations; each person must execute the same movements. But whenever the task is more complex and comprises various operations, there is some advantage in splitting the work into as many fractional tasks as possible, and assigning a part of it to each of a number of persons.

The earliest form of the division of labor was the division according to sex, the men doing one kind of work and the women another. The distinction of sex gave rise to a difference of economic functions, and the rudimentary division of tasks thus evolved coincided with the first phase of economic evolution, — the phase which we have called the home or family economy. Yet this division of labor is far from corresponding to the modern conception of the peculiar province of the two sexes, viz., the idea that man should perform the hard work and woman the household duties. This is by no means the original view of the rôle of the sexes. Originally man took the noble occupations, such as hunting, fighting, the care of cattle, while woman did the base labor, including not only the household work, weaving, etc., but also the labor of carrying goods like veritable beasts of burden. *Cura agrorum feminis delegata*, says Tacitus, in speaking of the Germans; we observe the same thing nowadays among all the tribes of Africa. Woman was really the first slave, and the first kind of slavery so-called, — that of captives taken during intertribal warfare, — was for her the first step toward emancipation, because it unburdened her of the heavier kinds of labor (such as grinding the grain or turning the millstone) which were transferred to the slaves.

The second phase — that of corporations or guilds — coincided with a more detailed division of labor, viz., the rise of separate *trades*. Each guild or trade organization performed only one kind of labor, and the rules of the guilds exerted a jealous care that each one was confined to its particular specialty. The specialization of trades kept pace with the gradual perfection of the guild system; industries were divided and subdivided into branches or groups that performed but one part of a trade. The wood-workers, for example, were divided into carpenters, cabinet-makers, wheelwrights, etc., Even allied trades, such as the glovers, girdlers, pocket makers, skinners, white tawyers, and other workers in leather; or the fletchers (arrow-makers), the bowyers (makers of bows), and the stringers (makers of bowstrings), were organized into separate bodies. There were no fewer than a hundred craft-guilds in Paris in the middle of the thirteenth century, each of which was regarded as forming a separate trade organization.[1]

In the third phase, that of the workshop and domestic manufacturing, the division of labor attains the highest degree of perfection. It was in the workshop that the wonderful phenomenon of the division of labor first attracted the attention of Adam Smith, and led him to write those classical pages on the subject in his "Wealth of Nations" which have been reproduced time and time again.[1] All industrial labor, as we have seen, is simply a series of movements (see page 73), and despite its apparent complexity may be divided into a number of simple operations. If, now, we assign each simple movement to one laborer or group of laborers, each laborer or group will constantly perform the same operation.

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[1] The German statistics for 1882 enumerated 6459 different occupations, not including the liberal professions.

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[1] Speaking of the trade of the pin-maker, Adam Smith says (Book I, Chapter 1, of the "Wealth of Nations"): "A workman not educated to this business (which the division of labor has rendered a distinct trade), nor acquainted with the use of machinery employed in it (to the invention of which the same division of labor has probably given occasion), could scarce, perhaps, with his utmost industry, make one pin in a day, and certainly could not make twenty. But in the way in which this business is now carried on, not only the whole work is a peculiar trade, but it is divided into a number of branches, of which the greater part are likewise peculiar trades. One man draws out the wire, another straights it, a third cuts it, a fourth points it, a fifth grinds it at the top for receiving the head; to make the head requires two or three distinct operations; to put it on is a peculiar business, to whiten the pins is another; it is even a trade by itself to put them into the paper; and the important business of making a pin is in this manner divided into about eighteen distinct operations, which, in some manufactories, are all performed by distinct hands, though in others the same man will sometimes perform two or three of them. I have seen a small manufactory of this kind where ten men only were employed, and where some of them consequently performed two or three distinct operations. But though they were very poor, and therefore but indifferently accommodated with the necessary machinery, they could, when they exerted themselves, make among them about twelve pounds of pins in a day. There are in a pound upward of four thousand pins of a middling size. Those ten persons, therefore, could make among them upward of forty-eight thousand pins in a day. Each person, therefore, making a tenth part of forty-eight thousand pins, might be considered as making forty-eight hundred pins in a day. But if they had all wrought separately and independently, and without any of them having been educated to this peculiar business, they certainly could not each of them have made twenty, perhaps not one pin in a day; that is, certainly not the two hundred and fortieth, perhaps not the forty-eight hundredth part of what they are at present capable of performing, in consequence of a proper division and combination of their different operations."

The example chosen by Adam Smith is out of date, since pins are now made by machinery, and one thousand persons suffice to turn out, on an average, twenty-five tons of pins per week. In Adam Smith's time not less than four thousand two hundred were required for the production of about one-seventh of that quantity.

In the next phase, — that of factories, — the division of labor seems almost to have retrograded; or rather, not men but machines do the specializing.

Finally, there is beyond this another form of the division of labor, which may be called *international* division of labor, because it has grown up under the influence of the development of international transportation and exchange. Each nation devotes itself more especially to those branches of production which seem best adapted to its soil, its climate, and the abilities of its inhabitants.[1] This tendency, however, which thirty years ago appeared to be making great progress, is now arrested at least momentarily by the protectionist movement, which tends to make each country an autonomous market.

II. The Conditions of the Division of Labor

Division of labor is evidently most nearly perfect whenever labor may most easily be cut up into many separate operations. But the number of workmen must necessarily be proportionate to the number of these distinct operations.[2] It is furthermore evident that the number of workmen which an employer can afford to hire depends on the amount of goods to be produced. And as the amount of goods produced depends necessarily on the size of the market, we may say in the last analysis that the division of labor is directly proportionate to the size of the market.

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[1] Some economists have referred to the *territorial* division of labor, which is essentially the same as international division of labor, explained above, and the *hereditary* division of labor, by which certain occupations tend to be confined to certain families or races.

[2] It would be a great mistake to suppose that we could carry out the division of labor by employing *one* workman for each distinct operation; generally, a larger number is required. Suppose that the making of needles comprises three operations: making the point, making the head, and piercing the eye. Suppose that it takes ten seconds to make each point, twenty for each head, and thirty for each eye. It is evident that in order to keep busy the workman who makes the points, we need two men to make heads and three to make eyes. It is therefore necessary to have, not three but six workmen, else the first one will remain idle a great part of the time. It would be easy to complicate further our hypothesis in illustration of this fact.

This is why, as every one doubtless has observed frequently, the division of labor prevails to a great extent only in large centres of population, and is almost unknown in the country or in small villages. A country store usually deals in a pell-mell variety of goods, — spices, meats, toys, stationery, dry goods, and many other articles which in a large city would be distributed among different stores.[1] The reason for this is simple. The village storekeeper is obliged to deal in many things, to be a Jack-of-all-trades, because a single trade would not be sufficient to enable him to earn a livelihood.

Most books on political economy mention a second condition necessary for the division of labor, viz.: *continuous*, not intermittent, *production;* hence the conclusion is drawn that the division of labor is not applicable to agriculture. This conclusion is too sweeping. Division of labor on a farm cannot, to be sure, be managed in the same manner as in a workshop. It would be too expensive to have one man sow, another reap, another gather grapes, or take care of the vines, or plant them; because each of these operations must take place only at a fixed season of the year and for a limited number of days. Hence the workman whose task is limited to one of these operations would be idle eleven months out of twelve. But it is possible, or at any rate it would be desirable, to introduce the division of labor in another form by having each man or group of men devoted to the cultivation of a specific plant. It is even probable that to the extent that agriculture grows more intensive and more akin to horticulture, this specialization will take place.

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[1] It would seem at first sight that the city department stores do the same thing as the country stores. But these large stores really carry out a very thorough division of labor, each department having its own special manager. Each of the important branches of the business of a large department store, moreover, has its own "buyer," who has charge of the purchasing and marking of goods, and who sometimes receives as much as $30,000 a year.

III. The Advantages and Disadvantages of the Division of Labor

Division of labor increases the productive power of labor in proportions that surpass imagination. The reasons for this are as follows: —

(1) As we have already explained, the most complicated work can be divided into a *series of very simple and almost mechanical operations*, which are therefore very easy to perform; in this way production may be facilitated to an amazing degree.

Indeed, these operations may become so simple that man's labor is unnecessary, and a machine will do the work just as well. It is the division of work into simple constituent parts that has made it possible to construct machinery for doing work that at first sight appears to be most complicated.

(2) The division of labor creates a great diversity of tasks, each of which differs from the others in point of difficulty and of the strength or attention it requires. Hence we may fit each of these tasks to the *individual capacities of the workmen*. We can utilize each man's natural aptitudes, and thus avoid the waste of time, strength, and capital which would result from having the same work done by all the workmen, whether they are strong or weak, ignorant or intelligent. In other words, we may thus avoid squandering the energy of the strongest and the most capable on work that is too easy for them, or wasting the labor of the weak and the ignorant on tasks that are beyond their powers.

(3) *The constant repetition of the same task* results in developing remarkable dexterity in manual labor, just as, in intellectual labor, sustained and persevering application singularly develops the intellectual faculties, and consequently the power to produce. Doctors, lawyers, painters, novelists, scientists, all have their *specialties* nowadays; and each man finds it to his advantage to settle in one little corner of the domain of human knowledge and diligently explore that part alone.

To the above three reasons it is customary to add three others of less importance.

(4) *Economy of time*, which results from continuous work. A workman who changes often from one task to another, loses, at every change, not only the time which intervenes between the two occupations, but especially the time necessary for *getting well started*.

(5) *The economy of implements*, which reaches a maximum when each laborer employs but one tool, and uses that one constantly.

(6) *A shorter period of apprenticeship*. The time needed to learn a trade is proportionate to its complexity.[1]

But as opposed to all these advantages, some serious drawbacks have long been pointed out: —

(1) *The degradation of the workman*, who performs the same simple operation all the time and is thus reduced to the rôle of a mere machine.[2]

To this objection the reply may be made that the introduction of machinery constantly tends to remove this evil effect of the division of labor. Indeed, we may be sure that as soon as any productive operation becomes so simple as to be purely mechanical, it will not be long before the workman will be replaced by a machine, since machine labor is cheaper than human labor in such a case as this.

Again, the reduction in the length of the workday, leaving the workman spare time in which to employ his mind and body in normal ways, must also be regarded as an indispensable corrective of the division of labor in modern industry.[3]

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[1] The suppression of apprenticeship, which is quite as much due to the introduction of machinery as to the division of labor, is in itself a regrettable circumstance, and efforts are now being made in many countries to counteract its unfortunate effects by creating trade schools.

[2] Lemontey has put this objection into a classical phrase: "It is a sad confession for a man to make that during his whole life he has done nothing more than make the eighteenth part of a pin."

[3] The socialist Fourier believed that by the aid of what he called *short sessions* all the advantages of the division of labor might be obtained without

(2) The extreme *dependence* of the workman who is incapable of doing anything except the particular and entirely special operation to which he has become accustomed, and who, therefore, is in constant danger of being helpless when discharged or when the progress of industry makes his particular task unnecessary. Like the parts of the commodity which he helps to make, and which are worthless unless combined with the other fractional parts that make up a whole product, he, too, may be said to have no more importance than that of a single wheel in the vast industrial machine; without the other supplementary parts he has no value and his toil is worthless.

What, then, must be our final judgment regarding the division of labor?

If we consider it as applied in factories, no hesitation is possible. The advantages of the division of labor far outweigh its disadvantages, and these disadvantages, even, are largely imaginary. To be sure, there are many kinds of mechanical work that stunt the intelligence; but this is not due to the division of labor. The work of a street-sweeper is not divided. Is it therefore nobler than that of a laborer who makes nothing but nails? And, as some one has wittily remarked, would the workman who makes only pinheads

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its disadvantages. He planned that each laborer should ply not one but several trades, and pass in turn from one to another. The advantages of specialization thus are retained; for a man need not work at one thing his whole life to be able to do it well. He may, thanks to division of labor, become skilful in five or six different operations or trades, especially if they are simple ones. Moreover, the deadening monotony of always performing the same kind of work is avoided, and Fourier endeavored thus to satisfy what he very picturesquely called the "butterfly" instinct, that prompts us to like change. This idea is by no means absurd, though it has been much ridiculed; but its execution would require that the workers could change work without losing too much time. Hence Fourier invented his "Phalanstery," where all laborers are assembled, in order that this rotation of work might be managed easily and in such a way that there would be no difficulty, for instance, in having the blacksmith abandon his anvil and turn to rose gardening.

gain much intellectually and morally by making whole pins? Admitting, moreover, that apprenticeage has been done away with, its place can be taken advantageously by some plan for giving the workman a general trade education that will help him, although himself confined to a single fractional task, to understand what position he occupies in the whole trade, and, if need be, enable him to pass from one branch of it to another.

But when, broadening the scope of our inquiry, we ask whether the social division of labor into special trades and occupations is good, and whether it should be regarded as the normal economic organization of the future, we hesitate to reply affirmatively. Certainly this division of labor makes men dependent on each other, and, like the physiological division of labor among the organs of a living body, it seems to make all the members of society parts of one and the same organism, and thus realizes the ideal of those who insist on the principle of social solidarity. Indeed, many sociologists point out this analogy approvingly.

We, too, believe in social solidarity and interdependence. We hold with M. Espinas that "the aptitude for living apart from others is only a very inferior mark of individuality." The aptitude for isolation, indeed, is really a characteristic of the savage, and the savage is no longer the ideal type of humanity, as he was for the writers of the eighteenth century. But we dislike to regard the division of labor as the basis of solidarity, for the reasons that it is, first, an unconscious fact of a quasi-physiological nature, and, secondly, because it implies the increasing differentiation of individuals and tends to subordinate everything to the interest of trade and production.[1] Now true solidarity tends to bring men together and

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[1] M. Durkheim, in his remarkable book on "La Division du Travail Social," regards the division of labor as the fundamental social law. He even considers it to be the foundation of ethics, and maintains that the differentiation of individual tasks makes each person incapable of sufficing unto himself and hence obliges him to render reciprocal services and to establish a system of mutual consideration and assistance.

The division of social labor is, moreover, according to Durkheim, both to unite them, not to send them off in divergent directions; it seeks to give each man a more complete and perfect individuality, not to make him more and more insignificant by reducing him to the level of a mere wealth-producing, wealth-transmitting, or wealth-exchanging machine.

It is to be hoped, therefore, that the division of social labor into trades and professions will not endanger the thorough and harmonious development of human personality. This hope is perfectly realizable if everybody can reserve, apart from the hours given to his particular occupation, an increasing share of his time and activity for domestic, civic, intellectual, religious, and æsthetic pursuits. From this point of view, a reduction of the hours of labor is a matter of primary importance. (See Book IV.)

the effect and the corrective of the struggle for life. As the struggle for life is most intense when individuals are most alike and have the same wants, everybody tries to become a specialist and endeavors to do something different from the others; thus the division of labor is the effect of the struggle for life. . The division of labor enables individuals to escape competition and thus to escape ruin or extermination; hence it is also a corrective of the struggle for life.

BOOK III. THE CIRCULATION OF WEALTH

THE circulation of wealth, more frequently called exchange in English treatises on political economy, is really only a part of production, and in the preceding editions of this book it was so presented. Indeed, exchange is not an end in itself, for wealth is not exchanged simply for the sake of exchange. *Exchange* and *credit* (which form the two essential parts of the circulation of wealth), and the ingenious devices to which they give rise, are really only methods of organizing labor, — methods having absolutely the same purpose as association and the division of labor, namely, to facilitate production. The division of labor and exchange are logically and practically inseparable from each other.

Notwithstanding this fact, most treatises on political economy devote a special section to the phenomena of exchange and credit. They do this not only because these subjects are very important and extensive, and it is pedagogically desirable to have symmetrical divisions of the science, nor simply because they cover what is called *commerce* as distinguished from *industry* and *agriculture*, but principally because these new methods of organizing labor coincide with a separate and distinct stage in the productive process. When wealth is once created, the next step is to transfer it; it does not again change *form*, but it changes *owners*.

CHAPTER I — EXCHANGE

I. The History of Exchange

EXCHANGE occupies an exceedingly important place in modern life. Nearly all the wealth that is created is produced for the purpose of being exchanged. Take the wheat in the granaries, the vegetables in the barn, the cloth at the tailor's, the shoes at the shoemaker's, the jewels at the goldsmith's, the bread at the baker's, and ask: What part of all this wealth is destined by the producer for his own consumption? Very little or none at all. All these things are *merchandise*, *i.e.* objects intended for sale. Our thrift, our skill, our talents also, are most frequently applied not to satisfy our own wants, but those of *others*. It happens very rarely that lawyers, physicians, and notaries have to work for themselves, pleading their own cases, healing their own ailments, drawing up their own documents. They, too, regard these services only from the point of view of exchange. This is why, when we estimate our wealth, we do not estimate it according to its utility for *us*, but solely according to its exchange value, *i.e.* its utility for *others*.

It must not be supposed that this state of affairs has always prevailed. Exchange is by no means so simple a process as association or as the division of labor, both of which are so natural that even certain animal species put them into practice. Far from being instinctive, exchange seems originally to have been antipathetic to human nature. Primitive man regarded the product of his labor almost as a part of himself. Hence all sorts of strange and solemn formalities were at the beginning attached to every transfer of goods, *e.g.* the *mancipatio* of Roman law. Curiously enough, gifts seem to have been prevalent before exchange, and it is even supposed that gifts gave rise to exchange in the form of a fictitious reciprocal donation.[1]

In the first phase of industrial organization — that of the family — there evidently could be no exchange, as each group formed an autonomous, self-sufficing organism. It was solely by the labor of its members and its slaves, and later by the toil required of the serfs, that the group provided for the satisfaction of its wants.[2] Exchange took place only in those exceptional or accidental cases when a few exotic products were sold by foreign merchants who brought them from abroad. (See the section on Merchants.)

In the second phase — that of corporative or guild production — exchange necessarily results from the separation of trades. It is, however, limited to one town. Producers and consumers, who are also fellow-burghers, meet at the *town market*. Merchants from without soon succeed in penetrating these markets, but not without great difficulty and long struggles, and only under certain rigorous restrictions.[3]

In the third phase — that of manufacturing — the market grows wider and becomes *national*. Here exchange and commerce really begin. It has been observed that the rise of national markets coincides with the formation of the great modern states. It is noteworthy that in France the growth of a national market took place at the same time that Vauban did away with urban fortifications and built a national system of fortifications; this coincidence demonstrates in a striking fashion the fact that economic, political, and military evolution everywhere follow along parallel lines.

The market becomes still larger by becoming *colonial*, when the economic life of a nation is not confined within its own borders but extends to its colonial possessions. This extension of the market began in the seventeenth century, at the time when the great commercial companies were founded that subsequently played an important part in history (for example, the English East India Company).

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[1] See Herbert Spencer's "Sociology," Part IV.

[2] Consult Buecher, "Industrial Evolution," and Cunningham, "Western Civilization in its Economic Aspects."

[3] Foreign merchants usually were permitted to sell goods in the cities only on these conditions: (*a*) they had to pay a fixed tax; (*b*) they could not sell at retail, *i.e.* to the public, but only to the merchants of the locality; (*c*) they

Then, finally, in the fourth stage — that of machinery, railroads, and steamboats, — the market becomes truly *international*, and commerce acquires the enormous dimensions that have helped profoundly to modify the economic relations of the world, and have made the problem of international trade one of the most important problems of our epoch.[1]

II. Exchange Value

It is an academic problem whether the concept of value can exist apart from that of exchange. We believe that it can. Value, as we have said, is the expression of a scale or classification of various kinds of wealth, of preferences, or of degrees of desirability. Even Robinson Crusoe had a comparative scale of values; there were some things he prized more highly than others, and he showed his preferences by the order in which he saved goods from the shipwreck, since he naturally chose the *most desirable* objects first. There may be value, therefore, without exchange. We admit, however, that in social life exchange is practically the sole determinant of the idea of value. Exchange removes the notion of value from the inner consciousness in which, so to speak, it was slumbering, and makes it definite and vivid. Exchange leads us to compare our preferences, and makes them more precise and positive.

The old economists, beginning with Adam Smith, or rather

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could sell only at certain times of the year and at specified places. See Ashley's "Economic History of England," and Cheyney's "Industrial and Social History of England" (Macmillan, 1901).

[1] We do not, of course, pretend that the chronological history of commerce coincides exactly with the above outline; we have endeavored simply to give a general sketch of its tendencies — a sort of mnemotechnic generalization.

with Aristotle, distinguished two kinds of value: first, *value in use* (which may also be called *individual value*), and second, *value in exchange* (which may be called *social value*). They showed that these two values may be quite different from each other. For instance, spectacles have great value for a near-sighted scientist who could not read without them, but their value in exchange is rather small; on the other hand, diamond ear-rings, which may have a very high *exchange value*, have for him absolutely no *value in use*.[1]

What is the reason for this difference? Value in use is determined solely by the wants and desires of a person at a given moment; it has no other foundation than *subjective usefulness*. On the other hand, value in exchange appears to have a more objective character; it is uniform in one and the same market,[2] and is called *current price*. Indeed, this value or price is "quoted" regularly in the newspapers for a multitude of commodities, and serves as a basis for speculation. While value in use is simply the result of individual subjective judgments, value in exchange seems to take precedence over individual judgments and obliges sellers and buyers to "follow the market." This is not only a matter of everyday experience, but an economic law of the greatest importance, and may be formulated thus: *In the same market there can be only one price for merchandise of the same quality.*[1]

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[1] A five-dollar bill certainly has not the same *value in use*, that is to say, not the same *utility*, for a millionnaire as for a poor man. To the poor man it means several days' subsistence, whereas to the millionnaire it means merely some insignificant bauble that he might buy with it. On the other hand, it is evident that the bill has for both the same *value in exchange*, inasmuch as all five-dollar bills have the same value, and one bill will buy as much as another, under similar circumstances.

[2] "Market," in the economic sense of the term, does not mean a place or establishment in which goods are bought and sold, but the totality of sales and purchases — the whole sphere in which the transfer of merchandise and the communication between buyers and sellers is quick enough to establish a uniform price. The extent of markets varies according to the nature of the merchandise. The wheat market, for instance, may include a whole nation; the market for gold extends over the whole world; the market for vegetables is generally confined to a small district.

· See Francis Walker's interesting discussion of markets in his "Political Economy."

What, then, determines value in exchange? Formerly, in the classical treatises on political economy, the determination of exchange value was explained by a formula that was simple, and, in appearance at least, perfectly clear; viz., that *exchange value varies directly with the demand, and inversely with the supply.* This formula is now quite discredited, — perhaps too much so. There are several objections that may be raised against it: —

(1) Despite its appearance of mathematical exactitude, this rule is contrary to facts. If the supply of wheat were diminished by half in a country having no commerce with other countries, its price would be much more than doubled; it would be five times as high.[2] Again, if the supply of wine were diminished by half, we may be sure that the price of wine would not be doubled.

(2) It mistakes the effect for the cause. If an increase in the demand raises the price, it is evident that the increase of price will in turn diminish the demand; and if an increase of the supply makes prices fall, it is evident that lower prices will in turn tend to restrict the supply. In other words, instead of saying that demand and supply regulate prices, we may just as well say that prices regulate demand and supply.[3]

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[1] Stanley Jevons calls this the *law of indifference*, meaning that it is a matter of indifference whether we choose one or the other of two objects when they are identical; we have no reason for *preferring* the one to the other, and will not consent to pay more for it — no matter how much more labor its production may have cost.

[2] An English economist of the seventeenth century, Gregory King, in a celebrated law which bears his name, explained the relation between the quantity of wheat and its price. For deficits of 10, 20, 30, 40, and 50 per cent, we should have a rise in prices of 30, 80, 160, 280, and 450 per cent, respectively. It is of course true that this law, although valid at a time when England formed a closed market for wheat, has to-day lost all practical importance because of the international trade in cereals.

[3] Take any kind of securities selling on the stock exchange, for example 3 per cent government bonds, and suppose them to be selling at $100.

(3) It attributes no intelligible meaning to the terms *supply* and *demand*. The word *supply* may, to be sure, mean the quantity of merchandise, the stock existing on the market, although in many cases a purely imaginary reduction of the supply (such as the bare fear of a bad harvest) may produce the same result as a real diminution. But what are we to understand by *demand?* The quantity in demand is in fact absolutely indeterminate, since it depends entirely on the price. At one cent a bottle, the demand for Bordeaux wine would be almost unlimited; at $100 a bottle there would be hardly any demand at all.

We must therefore inquire what other theories have been suggested in place of the classical formula. In this connection we shall encounter again the two important theories outlined in the section devoted to value in use; namely, the theory of *final utility* and the theory of *labor* or *cost.*

(A) Let us first examine the *utility* theory. Very ingenious as an explanation of subjective value, the theory of final utility finds greater difficulty in explaining exchange value. After showing that bread, for example, has a different value for each person, and may even have a different value for the same person at different times (according to his state of hunger or satiety), how can this theory account for the fact

There is always a demand for a certain amount of these bonds, and usually a certain amount of them for sale. Suppose that at the opening of the stock exchange the amount of these bonds demanded is twice that of those offered for sale. Who would imagine that the price will double and reach $200? Yet this is what ought to take place if the classical formula is true. In reality, the price quoted for these bonds may not rise even $1, for the simple reason that the majority of people who would buy at $100 will withdraw as soon as the price rises above this point. It is evident that if the demand for bonds diminishes with every increase in the price, the supply, at the same time and for the same reason, will increase. A time must come, therefore, when the decreasing demand and the increasing supply are equal and form an equilibrium. Usually, a rise of but a few cents is sufficient to bring about this result.

The same rules hold for almost all kinds of merchandise, to a greater or less extent. Everywhere and always, the supply and the demand tend to establish an equilibrium by means of the rise or fall in prices.

that the exchange value or money value of wheat is the same in one market for millions of persons; how, moreover, can it explain that the value of wheat does not vary much throughout the whole nation, nor differ greatly from one nation to another, nor change considerably from year to year?

The utility theory explains this by observing that in order to effect the transition from many individual values to a uniform exchange value of a commodity, we must take into account its final utility not only for the possessor but also *for other persons*, *i.e.* for possible purchasers.

If, for instance, I have a thousand bushels of wheat in my storehouse, the thousandth bushel has no final utility *for me*, for surely I have no need of it. Yet it certainly has an exchange value, which is just the same as that of any other bushel; for although I myself have more wheat than I need, there are persons who have not enough, and for these persons my thousandth bushel has a final utility. This utility confers a value on the whole quantity.[1]

The manner in which exchange value is fixed in an open market under ordinary circumstances may best be explained by an example. Suppose that at a given time there are

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[1] In reality the problem is much more complicated than this. Fortunately for the consumer and for the general public, the market price is not always determined by the purchaser most desirous of buying, *i.e.* the person who attributes a *maximum* individual value to the object. For we must remember that the seller is not alone. There are other sellers quite as anxious as he to dispose of their goods — perhaps more so. Consequently, might we not just as well say that the price will be determined by the seller who is most desirous of disposing of his goods, or who is most in need of money, *i.e.* by him who attributes to the object the *minimum* individual (or subjective) value? Under these conditions the problem would still remain unsolved.

The Austrian school solves the difficulty by declaring that in reality neither of these two persons determines the price. On the contrary, they stand aside and wait until the rates are fixed by others. The buyer who is most disposed to offer a high price will not be foolish enough to pay an exorbitant price if he can get the object cheaper. And, on the other hand, the seller most anxious to dispose of his goods will take care not to sell them at a several persons prepared to sell coats, provided they can obtain a sufficiently high price. Suppose, furthermore, in order not to obscure the point at issue, that all these coats are of the same quality and that each prospective seller has but one coat to dispose of. Now it is evident that these possessors of coats do not all require the same inducement to part with their goods; some will not give them up except for a high price, while others (who are perhaps in great need of money) will accept a very small price. Let us assume that:—

A is willing to sell his coat for $10.00
B is willing to sell his coat for 9.00
C is willing to sell his coat for 8.00
D is willing to sell his coat for 7.00
E is willing to sell his coat for 6.00
F is willing to sell his coat for 5.00
G is willing to sell his coat for 4.00
H is willing to sell his coat for 3.00
I is willing to sell his coat for 2.00
J is willing to sell his coat for 1.00

On the other hand there are several persons contemplating the purchase of a coat. Not all of them are willing to make the same sacrifice to obtain one, but if they should find that the price is so low that the coat would be more useful than the money paid in exchange for it, they would not hesitate to

price lower than is necessary. Therefore both of them await developments. They wait until the purchaser who is *least anxious to buy* has met and dealt with the seller who is *least anxious to sell*. These are the persons who, by virtue of their stronger economic position, determine the market price. They are called the "marginal pair."

But, admitting the validity of this proof, we must remark that it results in the rather curious consequence that exchange value coincides in reality with the *final utility of a commodity for none of the buyers and none of the sellers, except one of each!* This is indeed a case in which the exception is held to be more important than the rule. (This criticism is developed by Macfarlane, in his book on "Value and Distribution," Philadelphia, 1899.)

Those who are curious to know how a subtle thinker juggles with these difficulties may consult Boehm-Bawerk's remarkable book on "Capital," which has been translated into English; or a very complete summary of the theory in Smart's "Introduction to the Theory of Value."

buy one. Not all will be willing or able to make the same sacrifice. Let us assume that: —

K is willing, if necessary, to pay $8.00
L is willing, if necessary, to pay 7.50
M is willing, if necessary, to pay 7.00
N is willing, if necessary, to pay 6.50
O is willing, if necessary, to pay 6.00
P is willing, if necessary, to pay 5.00
Q is willing, if necessary, to pay 3.50
R is willing, if necessary, to pay 3.00
S is willing, if necessary, to pay 2.50
T is willing, if necessary, to pay .50

Now under these circumstances it is evident that neither A nor B will sell his coat, since the purchaser most eager to buy will not give more than $8.00. It is equally evident that T cannot expect to acquire a coat, since the seller most anxious to dispose of his coat will not accept less than $1.00. Consequently the market price will be somewhere between $8.00 and $1.00. C is willing to sell his coat for $8.00, and K is willing to pay this price. Will the price therefore be $8.00? This is extremely unlikely, because there are seven coats on the market that can be bought for *less* than $8.00 each, and C will not pay $8.00 for what he can get for less. J, for example, will, if necessary, sell his coat for $1.00. Will $1.00 therefore be the market price? Again we must answer negatively, because there are nine persons willing to pay more than $1.00 for a coat, and only one coat available at that price. Will the price be $6.00? If it is, we shall have six coats available at this price, and only five purchasers. Will the price be $5.00? If so, we shall have six purchasers, and only five coats for sale. Therefore the price must be somewhere between $5.00 and $6.00, perhaps $5.50. For at this price five coat-owners find it profitable to sell, and five intending purchasers find it to their advantage to buy.[1]

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[1] If the price is $5.50, the man who would, if necessary, have sold his coat for $1.00 may be regarded as having achieved a gain of $4.50. The man who would, if necessary, have paid $8.00 may be said to have gained $2.50 by

(B) Let us now examine the *labor* or *cost* theory. This theory, which founds value on labor, at first seems to give a better explanation of exchange value. The current price of merchandise on the market appears generally to be regulated by the *cost of production*. Now what is the cost of production but the quantity of labor expended in producing a commodity? We must inquire, however, what is meant by *quantity of labor*.

If *quantity of labor* means the duration of labor, or the amount of effort expended, measured by means of some sort of energo-meter, then this theory is disproved by facts, and is far from explaining them. Exchange value and price bear no necessary relation whatever to the time or trouble of production. (See page 59.)

If *quantity of labor* means the sum of values expended in raw material, manual labor, etc., then this theory harmonizes with actual facts, but no longer explains anything. It simply amounts to the discovery that the value of the whole product is equal to the sum of the values of its parts, which is a self-evident truth.

At all events we must not say, as is said so often, that value is *determined* by the cost of production. For we might just as well say, as opposed to this statement, that it is the value of things which determines their production and regulates the expenses that are necessary for this purpose. The art of the industrial manager consists precisely in foreseeing what the wants of men will be and what value men will attribute to certain things; he will so arrange and conduct production as not to expend more in producing goods than people will be willing to pay for them. If he is clever enough to expend less, he will reap a profit. If he unwisely expends more, he will lose; but the value of his product

purchasing a coat at the market price. Indeed, each seller and each purchaser must gain something by the transaction at $5.50, else he would not exchange. These gains are sometimes called quasi-rents, because of their fundamental resemblance to the phenomenon of land-rent.

will not be increased by so much as a single cent, if he succeeds or if he fails. (See the section on Profit.)

Hence there is here no necessary relation of *cause* and *effect;* that is to say, neither the cost of production nor value is the cause or effect of the other. We may simply say that under the pressure of an exterior cause, — competition, — and only where this pressure exists, *the cost of production and the value of the product always tend to coincide.*[1] This relation is one of the most important in political economy, but it does not by any means indicate the *cause* of value.

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[1] In the original French edition of this book, Professor Gide remarks that in all cases of monopoly this relation between the cost of production and value no longer holds true. It must not be supposed, however, that monopolies can or will arbitrarily put up prices. For if prices are exceedingly high, sales will be correspondingly small, and although the percentage of profit on sales will be large, the total profits will be small. As the interest of business concerns is to achieve the highest possible total profits, a monopoly will probably find it advantageous to lower prices so as to increase sales; in fact, it will endeavor so to adjust prices as to obtain not the highest possible profit on each article sold, but the highest total profit on all goods sold.

It may be suggested that perhaps the commodity in question is a necessity of life, and that consequently the monopolist is absolute ruler in this particular field of production. To this it may nevertheless be objected that there is no *absolute necessity* of life. Take bread, for example, or meat — both of which are regarded as types of *necessities.* If the price for these goods is exceedingly high, many persons will consume other articles of food, either because they are obliged to do so, or because they are not sufficiently fond of bread and meat to pay very high prices for them; they would rather eat vegetables and fruit.

There is, moreover, always a certain degree of *potential competition,* — competition which is sure to spring up if prices become extortionate, and which keeps prices within reasonable limits. In this sense, the pressure of competition is felt even by monopolies and trusts. (This point is discussed by J. A. Hobson, "The Evolution of Modern Capitalism," pp. 158 *et seq.*, and by Collier, "The Trust," Chapter VI.)

Whenever in the productive process there is an element of monopoly, value and the cost of production manifestly will not coincide. It is customary, moreover, to regard the profits of the manager or *entrepreneur* as the margin between the market value of the goods and their cost of production. There are, to be sure, some economists who maintain as a general principle that cost of production and value tend to become absolutely equal; but they consider normal profit to be itself a part of the cost of production.

In a word, we must conclude with regard to exchange value, as well as with regard to value in general (see page 64), that it is fruitless to seek a *single* cause or basis. The best way out of the difficulty, as Stanley Jevons and M. Vilifredo Pareto have proposed, is to remove the word "value" from the economic vocabulary and substitute the expression "exchange relation." It is indeed only a relation; the *causes* of this relation are not so important as the *conditions* which it must fulfil. These conditions may be reduced to two, which together are necessary and sufficient: —

(1) The current price must be such that demand and supply coincide exactly, for it is evident that there cannot be more merchandise *sold* than *bought*, nor, inversely, more bought than sold.

(2) The current price must be such that all parties (sellers and buyers), even the least favored, secure a gain in utility. For it is evident that if there is not an advantage of some sort for both parties to an exchange, the transaction will not take place.

The old and discredited formula of supply and demand, in spite of its commonplace appearance, possessed the merit of indicating very well the various elements of value, and especially the two predominating points that we have mentioned. It explains clearly enough what M. Vilifredo Pareto has expressed in the much more scientific but more abstract formula: "Value arises from the contrast between tastes and obstacles." The *supply* is not only the quantity of goods obtainable in the market at a given time, but it must also take into account all the circumstances which (by facilitating production or rendering it more difficult) may vary this quantity. The *demand* is the intensity of the innumerable and fluctuating desires for a given commodity. To say that value increases when the demand increases means that things are more desired when the need for them grows and the quantity remains the same. To say that value decreases when the supply increases means that things are less desired when the quantity increases and the need remains the same. And this is a true statement of the facts.

III. How Value is measured by Exchange

As value is *degree of desirability*, to measure the value of a thing is to measure the intensity of the desire which that thing calls forth within us. But, it may be asked, is it possible to measure desires? Although not directly, it is certainly possible indirectly. All measures are simply comparisons. Just as in determining the *weight* of an object, we compare the earth's attraction for it with the earth's attraction for some other object, similarly we can measure the value of a commodity by comparing the attractiveness which it has for us with the attractiveness of some other object.

It is true that to weigh or measure desires we have no scales or foot-rules; but we do have a means that is no less accurate, viz., *exchange*. In every act of exchange, each party to the transaction is called upon to make a certain sacrifice to satisfy his desire; in order to obtain what he wants, he must relinquish a certain quantity of the wealth he possesses. Now it is evident that the extent of the sacrifice made is a good measure of the intensity of his desire for the object obtained. When a South African Basuto pays ten oxen for a wife, is this not a proof that for him the woman is ten times as desirable as an ox?

[It is not customary in English to speak of our *desire* for things already in our possession; when we have obtained them, we are no longer supposed to desire them, and desire is, in one sense, extinguished by possession. But it cannot be said that things are less desirable when we possess them than when we do not; our feeling toward things may be just the same after possession as before, and our appreciation of them just as great. In this sense our desire attaches to things we own, quite as well as to things we wish to own. But our estimate of the desirability of an object often becomes clear and definite only when we contemplate giving it up. Hence we may be said to compare our desire for an object we possess with our desire for an object offered us in exchange for it.]

Whenever we have a high appreciation of (or, if we may use the word in this peculiar sense, a keen desire for) an object we possess, it will take a large quantity of other wealth to induce us to part with it; that is to say, a considerable amount of proffered wealth is required to arouse in our minds a desire opposed to that which leads us to retain possession, and sufficient to turn the scale in favor of the new desire. It is perfectly correct, therefore, to declare that *the value of a thing is measured by the quantity of other things for which it can be exchanged;* or, more briefly, the value of a thing is expressed by its *purchasing power.*[1]

If, then, I can exchange an ox for ten sheep, I may say that the value of an ox is ten times that of a sheep; or, inversely, that the value of a sheep is one-tenth that of an ox. This may be expressed in the formula: *The values of any two commodities are inversely proportionate to the quantities exchanged.* The greater the quantity of a commodity that I must relinquish in exchanging it for another, the less is its value as compared with the other commodity, and *vice versa.* Measuring values is exactly like weighing. When the two sides of the scales are on the same level, the weights of the objects are inversely proportionate to the quantities weighed. If we have to put ten sheep into one scale to balance an ox in the other, this indicates that the weight of a sheep is only one-tenth the weight of an ox.

IV. The Advantages of Exchange

Whether exchange should be considered as productive is an old question for debate among economists. The physiocrats answered it negatively. They even tried to prove that exchange could profit no one. For, said they, all exchange, if it is equitable, presupposes the equivalence of the two values exchanged, and consequently implies that there is neither gain nor loss on either side. It is true that one party may be *cheated;* but in that case one man's profit is balanced by the other's loss, so that in any case the result is naught.

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[1] But we must not say, as is often said, that purchasing power *constitutes* value. Our desire alone constitutes value. Purchasing power is only an *effect* of value, just as the attractive power of an electromagnet is merely the effect of the current passing through it.

This argument is purely sophistical, and was refuted by Condillac long ago. If exchange never led to profit, or if every exchange necessarily implied that some one had been cheated, it is difficult to understand why men have persisted for so many centuries in carrying on exchange. In reality, whatever I yield in exchange for something else is always less useful for me, less desirable, and hence worth less, than the thing I acquire. Otherwise I should not give it up. The person who exchanges with me pursues exactly the same line of thought. Each of us thinks that by the exchange he receives more than he gives; and however strange this may appear, we are both right. In our different opinions regarding the value and desirability of things, there is no contradiction. Do we not know that the utility of all things is purely subjective, and that it varies according to the wants and desires of each person? (See what we have already said with regard to Utility, page 52.)

Without continuing the discussion of these subtle distinctions, we shall state briefly the advantages of exchange from the practical point of view.

(1) Exchange enables us to utilize, in the best way possible, a large quantity of *wealth which without exchange would remain unused.* Without exchange, what would England do with her coal, California with her gold, Peru with her guano, Brazil with her cinchona bark? When analyzing the notion of wealth, we found that an indispensable condition of any object ranking as wealth was its capability of being utilized. And in order that this may be effected, the article must be conveyed by means of exchange to the person who is

to use it — the quinine to the fever patient, the guano to the farmer, the coal to the manufacturer. Suppose that exchange were suppressed everywhere, and that all persons and all nations were obliged to keep all the wealth they possess. What an enormous mass of wealth would thus be condemned to remain useless, and doomed to destruction! Not only must we say that without exchange the greater part of wealth would not be used, but we must add that it would never have been produced.[1]

In other words, we must regard exchange as the last of the series of productive acts that begins with invention (which is also an immaterial act) and continues throughout the whole list of agricultural, manufacturing, and transporting industries, bringing products step by step nearer to their final destination, which is, to come into the possession of the persons who will use them. These steps are changes of form, changes of place, and changes of ownership — all three of which are equally indispensable to the attainment of the final result.

(2) Exchange enables us to utilize in the best way a host of *productive capacities which without exchange would remain inactive.* If there were no such thing as exchange, each man would be compelled to produce all that is necessary to supply his wants. If his wants were ten in number, he would have to ply ten different trades. Whether he did this well or not would not alter the facts of the case; he would be obliged to regulate his production *not according to his aptitudes, but according to his wants.* With the introduction of exchange, however, the state of affairs is completely changed. Every one is then sure of obtaining by exchange just what he

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[1] Might one not object that exchange, although indispensable under a system of private property, would under a system of communism no longer have any reason to exist, and would therefore disappear? We must reply that even under a communistic system the producer is not the same as the consumer, and it would therefore be necessary for things to change hands. Turning things into a common store from which each member of society takes that which he needs, is also a kind of exchange.

needs; every one, moreover, devotes himself to the production of those things that he can produce best. He regulates his production not according to his wants, but *according to his aptitudes or his means.* Before the era of exchange, every one was obliged to produce what he needed most; now every one devotes himself solely to the production of whatever he can most easily produce. This is a most important and wonderful progress.

It may be said that these advantages of exchange greatly resemble those afforded by the division of labor; and, in fact, they are the same, only greatly increased and multiplied. If there were no exchange, association and division of labor would require a previous agreement among those who are to work in harmony. What would be the use of the most perfect division of labor in an immense factory producing (let us say) hats, unless other persons were simultaneously producing food, shoes, houses, etc., to exchange for these hats? Exchange dispenses with the necessity for a preliminary agreement, and thus enables the division of labor to extend beyond the narrow circle of the home and the workshop, and spread over the whole industrial community, reaching even to the extremes of the earth. Under a system of exchange, each man — no matter where he may be — produces according to his natural or acquired aptitudes and according to the facilities offered by the region which he inhabits; he devotes himself entirely to one kind of labor, and always puts the same product on the market, with a certainty that the ingenious arrangements which we are about to describe will permit him to receive in exchange any other objects that he wants. It has often been remarked that the things which any one of us consumes in a day, are the combined result of the toil of hundreds or perhaps thousands of workers who are united one to another by invisible but none the less real bonds of association.[1]

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[1] It is said that Mr. Carnegie, at a dinner which he gave to the members of the Pan-American Congress in 1890, remarked with some pride, "Almost

V. The Means of facilitating Exchange

Exchange would be very difficult — almost impossible — had not ingenious means been contrived for simplifying and facilitating it. These means of exchange may be classified as follows: —

(1) The formation of a class of middlemen called *merchants* or traders, and the rise of various processes that have been devised for bringing producers and consumers together.

(2) The creation and improvement of *means of transportation* designed to facilitate the conveyance of commodities.

(3) The invention of a commodity called *money*, designed to serve as a go-between in exchange, and enabling us to divide barter into sale and purchase.

We shall say but a few words regarding the first two of these institutions; the third, because of its importance, will require several pages.

VI. History of the Part played by Merchants

Contrary to what we might be disposed to believe, commerce or exchange did not first take place among neighbors and then extend wider and wider in its scope. The members of the same family or clan are entirely too much alike in wants and in habits to permit of any diversification of desires or products; the division of labor among them is too slightly developed to give rise to regular exchange relations. When each member of the family or clan (or even when each family or clan as a whole) produces the same things, how can there be any interchange of goods? Exchange was as a matter of fact first practised among peoples and regions far dis-

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the whole world has helped to provide the dinner which will be served to you." Doubtless this was true. But the same thing is also true of a poor man's dinner. As M. de Laveleye has well said: "The poorest laborer consumes the products of the two hemispheres. The wool for his clothes comes from Australia, the rice in his soup from India, the wheat in his bread from Illinois, the oil for his lamp from Pennsylvania, his coffee from Java."

tant and different from each other. Diversity of products and customs resulted from diversity of natural environment. Commerce, therefore, was international before it became local. It was maritime before it became overland. The first merchants or traders were sailors or adventurers, such as we read about in the travels of Marco Polo, or in the imaginary journeys of Sinbad the Sailor in the "Arabian Nights."

As commerce was originally carried on only with foreigners (or, as the two terms were originally synonymous, with enemies), it was at the beginning accompanied by fraud, stratagem, and frequently by violence. It was not strange, therefore, and seemed to cause no public concern, that Mercury was regarded as the patron deity both of merchants and of thieves.

At the beginning, moreover, merchants were persons of great note, men who were envied and feared, ranking higher than artisans or farmers, and constituting a veritable aristocracy. Trade or commerce on a small scale, and particularly *retail* trade such as exists to-day, is of comparatively recent origin.

In the evolution of trade or commerce two stages may be noted: —

(1) The first stage is that of the *travelling* trader. All the countries in which commerce is as yet little developed may be regarded as still in this stage; trade is carried on by means of caravans and travelling bands. This condition survives in our smaller towns, where *pedlers* and *hucksters* carry their goods about in quest of customers.

But the system of itinerant traders is impossible except for goods that can be easily transported; it is, moreover, a costly method, because the expenses it involves are, compared with the value of the goods and the amount of sales, exceedingly high. The profits of traders who conduct caravans across Central Africa must reach at least four hundred per cent in order to be regarded as worth while.

(2) Therefore, whenever commerce attains any develop-

ment, the travelling trader soon gives way to the sedentary trader or *shopkeeper*. Formerly, the trader sought his customer; now, the customer must find the trader. But the trader endeavors to attract the attention of purchasers by means of *signs* (which originally were of the same nature as the barber's pole in front of his shop, or the wooden Indian that, until quite recently, stood before most tobacco shops); or *show-windows*, exposing to view the goods themselves in the most enticing arrangement; or even by means that are designed to attract customers from afar, — such as *advertisements*, circulars, catalogues, or *commercial travellers*. These commercial travellers, or "drummers," differ from the travelling traders of previous epochs in that they carry samples with them instead of the goods themselves.

The advantages that society derives from the existence of traders are these: —

(1) They serve as intermediaries, or middlemen, between the producer and the consumer, and save the time each of them would be required to waste in seeking the other.

(2) They buy goods in large quantities, *i.e. wholesale*, from the producer, and sell them in smaller quantities, *i.e. retail*, to the consumer or smaller dealer, and thus obviate the embarrassments which inevitably would result from a difference between the quantity offered by the producer and that desired by the consumer.

(3) They keep merchandise *in stock*, and thus prevent the difficulties which might result from the fact that the producer rarely wants to sell goods at exactly the time the consumer wants to buy.

These are, no doubt, important services rendered by merchants or intermediaries, but we must inquire how much they cost to society. It must be admitted that for various reasons, chief among which is the small amount of labor involved in trading and the attraction it therefore has for many people, the actual number of middlemen, and of retail traders (shopkeepers) in particular, has far exceeded the number really needed. The multiplication of middlemen must of course result in a proportionate decrease in the average amount of business done by each of them. Hence, as the number of sales made by each is reduced, the price of each article is loaded with excessive general expenses, and it often happens that although the wholesale price of the goods sold by retailers falls considerably, there is no corresponding fall in retail prices. In this wise, middlemen tend to become veritable social parasites.[1]

When in addition to this we consider the frequent adulteration of goods, which has recently become a peril to public health,[2] and the untruthful advertisements which are also a result of keen competition among tradesmen, we must ask whether the services rendered by these intermediaries are not too dearly paid nowadays, and whether we cannot devise some other method of organizing exchange — a method that will be less costly and less dangerous for society.

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[1] As it is difficult to obtain figures illustrative of the growth of trading classes in this country, it is necessary to quote the French statistics on this point.

In 1866 the number of traders in France ("commerçants") was 858,312, and in 1896 it was 1,492,921. This is an increase of 74 per cent in thirty years. If this rate of increase should continue, the whole population of France would be traders in two hundred years.

A typical example of the increase in the number of shopkeepers in France, and one frequently quoted by French economists, is that of bakers. Thirty years ago there was in Paris one bakery for every 1800 inhabitants. To-day there is one for every 1300. In Lyons there is one for every 500, and in St. Etienne one for every 380 of the population. What is the result? Bread is sold at a price 40 per cent above the normal cost of production, that is, above the price for which coöperative societies sell it. For bread alone, the useless multiplicity of middlemen costs the French population sixty to eighty million dollars per annum! If we multiply these figures by the number of equally important articles of consumption in which middlemen deal, we will have some idea of the enormous tribute which a nation may be obliged to pay to the trading classes. The total amount would probably reach twice that which is paid to the government in taxes. Socialists and classical economists alike condemn this defect of our social organization. In 1822 Fourier denounced and foretold, with a vigor and an exactitude that have never been surpassed, the abuses to which our social organization would give rise in this respect.

Professor Leroy-Beaulieu has given an interesting discussion of this subject in his large "Économie politique."

[2] Undoubtedly the adulteration of food, false weights, and deceit in commerce are not exclusively characteristic of our own times. The writings of

Clearly the most effective remedy would be to put producers and consumers in direct relations with each other, and thus dispense with middlemen, or at least reduce their numbers to a minimum.[1]

The great difficulty consists in the fact that the producer cannot very well sell at retail, in small quantities, and the consumer is even less able to purchase wholesale. The attempt is now being made to overcome this difficulty by means of two kinds of association; namely, the association of producers who agree to sell to the public directly (for example, *agricultural syndicates* such as are mentioned in the footnote on page 168), or the association of consumers who agree to buy directly of the producers (*coöperative societies for consumption*, which we shall describe in Book V).

Therefore it is not impossible that the day will come when

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the prophets of Israel are full of imprecations upon the merchants of Tyre and Sidon. The mediæval guilds also found it necessary to forbid these practices. But it may be said that the great increase in the number of traders has aggravated this evil by obliging middlemen to lower prices in order to attract customers.

The adulteration of foods has become so serious a problem that most countries have legislated against it. Congress has recently (December, 1902) passed a "pure food law" defining and punishing food adulteration.

[1] Long ago, even before the class of traders had originated, producers and consumers met together at the *markets* or *fairs* which were formerly of great importance, and which still are found in rural districts or sparsely populated countries. But we could not think of returning to such a system as that. It would be more costly than the merchant class, because of the loss of time and the cost of transportation. Hence fairs and markets are losing their importance nearly everywhere. Yet in countries where improved methods of exchange are unknown, fairs are still important; the fair of Nijni-Novgorod, in the extreme eastern part of Europe, transacts business to the amount of $80,000,000 annually, and brings together between 200,000 and 300,000 people from all parts of the old continent.

there will be no more traders. It may perhaps seem that such a change would be tantamount to a return to former conditions, as it would lead us back to the primitive system by which producers and consumers exchange directly. But with regard to such apparent retrogressions as this, we must refer the reader to what will be said later concerning money and credit.

VII. The Means of Transportation

We may easily conceive of exchange without the displacement of matter; for instance, when we exchange immovable objects, such as land or buildings, or, better still, when exchange takes the form of pure speculation in commodities. Nevertheless, change of place may be regarded as an essential feature of that particular form of exchange to which both custom and legal phraseology confine the name of *commerce*. Now change of place, or transportation, requires labor, and consequently involves cost. Every invention which facilitates transportation also aids exchange; hence the history of commerce is in a measure identical with the development of transportation on land and on sea.

The difficulties of transportation are of various kinds, and due to several conditions, among which the following may be distinguished: —

(1) *Distance.* Man's genius cannot do away with distance. He cannot reduce the space that separates two parts of the earth. But practically the obstacle of distance is converted into one of time, and human ingenuity has been singularly successful in reducing the time necessary for traversing a given distance. The first stage between New York and Philadelphia, set up in 1756, made the run in three days. It was, even after the Revolution, quite an achievement to make the trip between New York and Boston in six days.[1] It is

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[1] In 1766 it was announced that a conveyance described as the Flying Machine, "being a good wagon, with seats on springs," would perform the whole journey between New York and Philadelphia in the surprisingly short

no exaggeration to say that we can now travel twenty times as fast as the founders of the nation; and we are perfectly justified in saying, therefore, that the size of the country has been reduced to one four-hundredth of what it then was (since surfaces vary in proportion to the squares of the radii). This remarkable change has been brought about by railways and steamboats, which have had the same effect as an astounding reduction of the earth's area.

(2) *The nature of commodities.* Cattle are not so easily transported as vegetables, nor vegetables so easily as coal, nor coal so easily as gold. Weight, danger of injury or of breakage, perishability or difficulty of preservation, are hindrances to transportation. But they may be partly overcome by rapidity of conveyance. In the days of sailing vessels, cattle or meat could not have been sent safely from America to Europe. This can be done to-day, thanks to the short duration of the trip. Formerly, it was impossible to send fish, fresh fruit, or game, from one part of the Union to another. Now this is done daily, and requires but a few hours. Besides quick conveyance, several recent inventions have helped overcome the obstacles in the way of transportation. Among these are the refrigerating process which permits

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time of two days. In his recollections of the revolutionary period, Samuel Breck describes how, by getting up at three or four o'clock in the morning and prolonging the journey until late at night, he used to make the trip from New York to Boston in six days, after a series of mishaps and accidents such as would suffice for an emigrant train crossing the plains.

Ocean travel then was scarcely known. In the time of Washington it was no uncommon occurrence when a vessel was nine, ten, or eleven weeks, or even three months, on a voyage from Havre to New York. In 1795, and for a number of years after, a man who had been abroad was pointed out in the streets of even large cities. (See McMaster, "History of the People of the United States," Vol. I, Chapter 1.)

Comparing present conditions of passenger transportation with those above described, we find that the trip from New York to Philadelphia is now made by express trains in about two hours, and from New York to Boston in less than seven hours. The time required a hundred years ago to travel from Boston to New York is now sufficient to go from the Atlantic to the Pacific coast.

the exportation of fresh meat from Australia to Europe; chemical processes used for the preservation of food; and perfected methods of canning. In spite of all these improvements, however, the difficulty of transporting certain objects, particularly meat, even now has economic consequences that are important and sometimes disastrous.

(3) *The nature and condition of roads.* This is the most serious obstacle of all; but it is also the one that human industry has coped with most successfully.

By sea, there is no need to build a road; the sea will bear any weight, and the horizontal level permits of motion in any direction. The weakest motive force, and, if we use the wind, a gratuitous one, is sufficient to propel enormous masses. It is not surprising, therefore, that the sea has always been the highroad of commerce, and that countries separated by a thousand miles of sea are really nearer than others divided by a hundred miles of land.[1] Even now, despite the wonderful progress of overland carriage, transportation by water is much less difficult and costly than transportation by land, *i.e.* it requires less labor.[2]

On land, the difficulties are greater. The broken and uneven surface of our planet scarcely permits transporting goods without *artificial roads*.[1] Carriage by men (as is usual in Africa), or by beasts of burden (as in Central Asia), can, if necessary, dispense with the need for roads; but transportation by means of vehicles cannot. Now road-building is a costly matter, and the better the road the more it costs. Railroads are the most perfect roads for their purpose, but they are exceedingly expensive. In Europe the average cost of railroads, including equipment, is about $115,000 per mile; but it varies greatly, according to the natural obstacles that must be overcome and the cost of labor and material employed in construction. The average cost per mile for road and equipment in the United States is about $50,000, in Germany it is about $120,000, in France $130,000, and in England considerably more. Even where a railroad can be built at the least cost, about $20,000 per mile must be expended.[2] Therefore the construction of railroads requires an enormous amount of capital, on which interest must be paid by the transporters of goods and by passengers. Nevertheless, if there is sufficient traffic, there is great economy in transportation by rail, to say nothing of its regularity, convenience, and rapidity.

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[1] More freight is carried between different countries by water than by land; in some countries, as in Russia and China, more is carried by water than by land even within the borders of the nation. As the saving of time is of great moment in transportation, steam has usually superseded sails in transportation over waterways.

Columbus, in 1492, was seventy days in crossing the Atlantic from Spain to the Bahamas; modern ocean "greyhounds" have reduced the record between Sandy Hook and Queenstown to less than five and a half days. Goods are often placed on the shelves of Chicago stores within ten days after leaving France.

[2] Larger ships and better machinery have reduced freight rates for transportation by water, and thus increased the natural advantage of economy. One pound of coal now supplies nearly three times as much steam-power as in 1875. A bushel of wheat is delivered at Liverpool from the North Dakota wheat-fields at a little over twenty cents. At Marseilles the English coal which has come through the Strait of Gibraltar and has travelled nearly 2000 miles, is sold cheaper than the coal from the Grand-Combe mines (in France), which are only 110 miles off.

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[1] Improvement in the means of transportation is illustrated by a multitude of modern contrivances: macadamized roads, railways, bridges, tunnels, regular sea routes which best utilize winds and currents, canals, the wonderful invention of the wheel, steel vessels, steam-engines, and locomotives. All these improvements and devices may be classified under three heads: those that concern the *road* or *route*; those that concern the *vehicle* employed; and those that concern the *motive power* used.

[2] The railroad mileage of the world at the end of 1900, according to the "Archiv für Eisenbahnwesen," was 490,902, costing nearly $39,000,000,000; whereas in 1830 there were less than 800 miles. The United States, which in 1870 had little over 50,000 miles, now possesses nearly 200,000, *i.e.* more than two-fifths of the world's mileage and more than all of Europe. Over 1,400,000 freight cars and 27,000 passenger cars are now running on the railroads of this country, which employ over a million persons, and whose net annual earnings are over $500,000,000.

According to the report of the United States Commissioner of Navigation for 1901, the world's merchant marine includes 40,556 vessels with a total tonnage of 31,498,847. This calculation included only steamers of over 100 net tons and sailing vessels of over 50 net tons; of the total thus obtained 12,702 were steamers with a total gross tonnage of 23,379,726.

Besides the means of transportation, it is interesting to note the development of telegraphy, which is scarcely less indispensable to modern exchange.

The cost of transportation by wagon varies from 6 to 10 cents per mile for hauling a ton of freight over the best roads, and is as high as 25 cents or more over very poor roads. The average price per ton for a mile of carriage on the trunk railroads of the United States has declined in the past thirty years from about 2 cents to 6 mills, and on two of them to 3.6 mills.[1] These comparatively low rates are not surprising when we reflect that to do the work of a locomotive attached to a freight train, we should require on an ordinary road at least three hundred horses, and that they would travel ten times more slowly.

VIII. The Division of Barter into Sale and Purchase

When exchange is carried on directly, commodity for commodity, it is called *barter*. But it is an inconvenient and almost impracticable operation. In fact, for barter to be successfully effected, A, the possessor of an object, must find some other person, B, who wants to obtain that object, and who possesses and is disposed to yield the very object desired by A. Nor is this all. Even if these two persons actually find each other, they must have two exchangeable objects of equal value, *i.e.* objects which correspond to equal and inverse desires. It is easy to see that all these conditions are but rarely fulfilled.[2]

According to R. E. May ("Die Wirthschaft in Vergangenheit. Gegenwart und Zukunft," Berlin, 1901) the world's telegraphic lines measure over two million miles, *i.e.* eighty times the earth's circumference. The number of messages transmitted in the United States in 1902 was about 90,000,000.

[1] The average rates on the New York canals have declined from 6.5 mills per ton mile to 1.9 mills. The present average canal rates are one-third that of most railroads. The average cost of transportation on the Great Lakes is about .6 mill per ton mile, and on the largest ocean freighters about .5.

[2] Lieutenant Cameron tells what trouble he had in buying a boat when

The invention of a third commodity to serve as a go-between removes the difficulties encountered by barter. It evidently involves an express or tacit understanding, among men living in society, by which each person agrees to accept this third commodity in exchange for his goods. Once this understanding is reached, exchange transactions are readily effected. Suppose that silver be selected as the commonly accepted third commodity in all exchanges. Then, for the commodity that I have produced and wish to dispose of, I will accept a certain amount of silver, although I may have no use for it. I do this because I know that when I wish to acquire anything I want, all I shall have to do is to offer its possessor a certain amount of silver; he will accept this silver for the same reasons that led me to accept it.

It is evident, then, that every exchange transaction can be divided into two separate and distinct operations. Instead of exchanging my commodity *A* for your commodity *B*, I exchange *A* for silver and then exchange this silver for *B*. The first of these exchange operations is called *sale*, and the second, *purchase*, — at least whenever the intermediary commodity is money properly so called. We appear, therefore, to have complicated rather than simplified exchange, inasmuch as two operations are now necessary instead of only one. But a straight line is not always the shortest road between two points. This ingenious roundabout method does away with an incalculable amount of trouble and loss of time.

Barter, as we have explained, is made impracticable by several circumstances. It requires, as we have already pointed out, that the producer, A, shall meet some other person, B.

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travelling in Africa: "Syde's agent wished to be paid in ivory, of which I had none; but I found that Mohammed Ibn Salib had ivory and wanted cloth. Still, as I had no cloth, this did not assist me greatly until I heard that Mohammed Ibn Gharib had cloth and wanted wire. This I fortunately possessed. So I gave Ibn Gharib the requisite amount in wire; whereupon he handed over cloth to Ibn Salib, who in his turn gave Syde's agent the wished-for ivory. Then he allowed me to have the boat." — VERNEY L. CAMERON, "All Across Africa," Vol. I.

who is inclined to acquire at once the particular object that A has to dispose of; it is necessary, furthermore, that B shall possess, and be willing to relinquish, the very object that A seeks to obtain. But with money as the medium of exchange, the producer A, although he has still to find some one who wants his commodity, no longer requires the purchaser to offer the commodity that he, A, wants. A will obtain from some other person, at some other time and place, the commodity that he wants. It is the inseparability of these two operations in barter that made them very difficult; but when the tie that unites them is broken, each of them separately becomes comparatively simple. It is not very difficult to find a *buyer*, *i.e.* some one who wants your commodity. It is even less difficult to find some one who is willing to sell you the commodity you want.

But we must not forget that although these processes are henceforth separated, they nevertheless continue to form a whole, and that the one cannot be conceived without the other. In our everyday life we are too apt to imagine that sale and purchase are independent and self-sufficient processes. That is a mistake. *Every purchase means a prior sale;* for before being able to exchange money for goods we must previously have exchanged goods for money. Inversely, *every sale points to a future purchase;* for if we exchange goods for money, we do so only in order that we may have this money to exchange for other goods. What else could we do with it? Still, as money can be kept for an indefinite period without being used, a long interval may elapse, — perhaps several years or even several generations, — between the sale and the complementary purchase. But in thought these two operations must be connected. Despite the interposition of a medium of exchange and the complication it introduces, every man in modern as well as in primitive society lives by exchanging his products or services for the products or services of others.

CHAPTER II — METALLIC MONEY

I. The History of Money

THE function of *medium of exchange* has not been assigned to any particular object by the terms of an *express* agreement among men, but because certain objects forced themselves upon men's choice by reason of the peculiar qualities which fitted them for this important service.

The difficulties of barter (see page 210) obliged men to choose an intermediary commodity to play a part in every exchange. They naturally chose a commodity that was familiar to them, and that they regarded as most generally useful. For primitive societies the most universally useful commodities were probably rude implements of hewn stone. In patriarchal societies cattle appear to have been the current "money" or intermediary commodity. Indeed, many Indo-European languages use the same term to designate cattle and money.[1]

According to circumstances, many other commodities have served as the medium of exchange; for example, rice in Japan, packages of tea in Central Asia, furs in the Hudson Bay territory, salt and colored calico in Central Africa. But one class of objects, viz., the metals gold, silver, and copper, from early times attracted man's attention in all civilized societies, and soon took the place of every other commodity as a suitable intermediary in exchange.

By virtue of chemical properties which make these metals comparatively unchangeable, they are furnished by nature in a relatively pure state, — gold purer than silver, and silver purer than copper. Hence they were known and used long before a knowledge of metallurgy enabled men to use other metals, such as iron. It is a singular coincidence that the old legend of the four ages of mankind, — the ages of Gold, Silver, Bronze, and Iron, — places these four metals precisely in the order in which man must have become familiar with them. The physical properties of gold and silver, — lustre, bright color, malleability, etc., — which are by no means common and which soon led men to seek them either for ornament or for industrial purposes, easily account for the important part they have played at all times and among all peoples.

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[1] The most familiar instance of this is the Latin word *pecunia*, which originally meant cattle or herd. Even in Homer values are estimated in "oxen."

These natural properties involve economic consequences of the greatest importance, which give the precious metals a marked superiority over all other commodities. These properties are: —

(1) *Facility of transportation.* No other objects have so great a value in so small a weight. A man cannot conveniently carry on his back more than sixty pounds. Now sixty pounds of coal are worth less than 20 cents; the same weight of wheat is worth about 60 cents; of refined sugar, $2; of cotton, $4; of copper, $8; of ivory, $130 to $150; of raw silk, $250; of silver, $500; of fine gold, $18,000.

The importance of this quality of precious metals is much greater than at first sight appears. It is plain that if we could do away with the difficulty of transportation for any commodity, if a mere word could transfer it instantaneously from one place to another, and if, therefore, the whole world formed but one market for this commodity, the result would be that its value would everywhere be exactly the same. (See page 207.) Suppose for a moment that its value were lower in one place than in another. Then it would immediately be transported from the first to the second place; and as transportation, according to our hypothesis, offers no difficulty and no expense, the slightest difference would suffice to make transportation profitable. Hence the difference of value supposed to exist could not continue; the original equilibrium would be reëstablished at once, just as water, whenever it has been agitated, immediately seeks its lowest level.

Now, as precious metals are of all commodities, except precious stones, those which have the greatest value in the smallest volume, they are also the commodities that may most easily be transported; their value, therefore, most rapidly tends to become uniform. For 1 per cent of its value (freight and insurance included) gold or silver can be conveyed from England to a Chinese port, whereas the transportation of the same weight of wheat would cost, according to the distance, 20, 30, or even 50 per cent of its value. It might seem to follow that, except for this one per cent, the value of the precious metals must be the same the world over. Yet such a conclusion is erroneous; for the value of the precious metals is in fact not the same everywhere. In mining districts, where these metals are produced, their value is somewhat lower than elsewhere. This explains the incredibly high prices formerly charged for goods in California, and now paid in the Transvaal. Nevertheless, we may say that the value of these metals satisfies fairly well the first condition of a good measure of values, viz., invariability from place to place.

(2) *Unlimited durability.* By virtue of chemical properties that make rusting, decay, corrosion, or disintegration impossible, gold and silver may be kept unchanged for an indefinite period. No other wealth is so durable. Animal and vegetable products decay, and even some metals, such as iron, oxidize and crumble into dust.

This characteristic is almost as important as the first. It has the same effect with regard to *time* as the preceding has with regard to *place*, inasmuch as it insures at least a relative invariability of value from one period to another. Because of this durability, by virtue of which the same molecules of metal may be coined and recoined, and thus last century after century, the precious metals are little by little accumulated in large quantities. The annual production of these metals, compared with the immense permanent accumulation of gold and silver, is as unimportant as a river compared with the ocean. As the accumulation increases, accidental variations in the annual production of gold and silver make less perceptible differences in the total amount. Any sudden increase in the volume of a river which runs into a small lake causes a considerable rise in the level of the lake; but the highest tides of the Rhone River, for example, raise the level of Lake Geneva only a few inches.

How different from the precious metals is wheat! It is not durable, and can be used only once. When each annual harvest takes place, the barns in which last year's crop was stored are already nearly empty. If the wheat crop in a particular year were doubled throughout the world, the large supply would cause a calamitous fall in prices. But if the output of our gold and silver mines were doubled in any one year, the effect would be trifling, because the annual product represents such a small fraction of the total existing supply. Yet variations in the output of precious metals may in the long run become perceptible. If the rate of annual increase were 5 per cent of the supply, the stock of gold and silver would be doubled in about fifteen years. Therefore, although the value of these metals offers a satisfactory guarantee of stability when only short periods of time are taken into consideration, it is far less satisfactory when we consider longer periods. This variability gives rise to some of the grave disadvantages which we have already pointed out.

(3) *Identity of quality.* As the precious metals are what the chemists call elements, they are always identical; that is to say, one piece of pure gold is like every other piece of pure gold. An experienced merchant can distinguish Odessa wheat from California wheat, or a tuft of Australian wool from wool grown on a Spanish merino; but the most skilful

goldsmith, with the aid of the most powerful reagents, can find no difference between Australian gold and gold from the Ural Mountains. There is no need for "samples" of gold.

(4) *Difficulty of counterfeiting.* The precious metals, because of their characteristic color, weight, and metallic ring, may be recognized by the way they look, the way they feel, and the way they sound; no other substances are likely to be mistaken for them.

(5) *Perfect divisibility.* By divisibility we do not mean simply the property of being readily drawn into threads or beaten into thin sheets, — for gold and silver are wonderfully ductile and malleable, — but economic divisibility as well. Dividing an ingot into a hundred parts does not alter its value in the least; the value of each fragment is exactly proportionate to its weight, and the value of all the fragments put together is exactly that of the original ingot.[1]

To use the precious metals as an *instrument of exchange* is one thing; to employ them as *money*, in the strict sense of the term, is another.[2] The use of the precious metals as money has an interesting history, extending through several distinct stages: —

(*a*) First the precious metals were used in the shape of crude ingots. In every exchange transaction these ingots had to be *weighed* and *assayed*. The legal forms of ancient Roman law, such as *mancipatio* and *libripens*, remind us of the days when the instrument of exchange, whether silver or bronze, had to be weighed. Even now in China, where coined money is not in use, merchants carry their scales and touch-stones with them.

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[1] Precious stones are superior to the precious metals in the first of the above requirements, viz., great value in small bulk, but in all the other requirements they are inferior: they are by no means uniform in quality, they can be successfully imitated, and they cannot be divided without losing a large part of their value.

Jevons, in his classical little book on "Money and the Mechanism of Exchange," enumerates seven qualities which the material of money should possess: 1, Utility and value; 2, Portability; 3, Indestructibility; 4, Homogeneity; 5, Divisibility; 6, Stability of value; 7, Cognizability.

[2] In the first chapter of his "Monnaies et Médailles," Lenormant says: "Great and powerful empires like those of Egypt, Chaldæa, and Assyria, passed thousands of years in wealth and prosperity, with as extensive commercial relations as any nation of antiquity, they constantly employed the precious metals in business, but were absolutely ignorant of their use as money."

(*b*) The inconvenience of being required to weigh and assay metals every time they made an exchange led men to conceive the idea of using cut ingots, the weight and standard of which were fixed beforehand and guaranteed by some official seal or stamp. The legislator who first conceived this ingenious idea may justly boast of having really invented money. The pieces of metal used in exchange may properly be called coined money when they are not *weighed*, but *counted*. It seems probable that the first money was coined between 700 and 650 B.C. by a king of Lydia, a successor of Gyges. Specimens of this money may be seen in the British Museum. It is neither of gold or silver, but an alloy of the two metals, known to the Greeks as "electrum." It is not disk-shaped, but formed like a bean, and bears only the traces of a few scratches and three indentations. Somewhat similar money is nowadays used in China, where the pieces of metal frequently bear the trademark of business houses supposed to certify to their weight and degree of purity.

(*c*) Still another step had to be taken. The cubical or the irregularly shaped piece of metal was inconvenient, and in spite of the stamp impressed on it with a view to guaranteeing its weight and purity, nothing was easier than to "clip" it without leaving any traces of this debasement of its value. It was still advisable always to weigh it and thus make sure of its real value. To remove this and other practical difficulties, men have adopted the form of coined money that is now thoroughly familiar to all civilized nations, *i.e.* small disks covered on both surfaces and on the edges with relief impressions, so that any tampering destroys the design.

Once adopted, this type of money underwent but little modification. To describe it we may make use of the definition given by Professor Jevons, "Coins are ingots of which the weight and fineness are guaranteed by the government, and certified by the integrity of designs impressed on the surfaces of the metal."

II. Is Money a Superior Kind of Wealth?

The popular answer to this question admits of no doubt. At all epochs and in all places, except among savages, money has occupied an exceptional place in the thoughts and desires of men. They regard it, if not as the only wealth, at any rate as by far the most important wealth. Indeed, they appear to measure the value of all other wealth by the quantity of money that can be obtained in exchange for it. To be rich is to possess either a large amount of money or the means of obtaining it in exchange for other goods.

It would be interesting to trace through history the various manifestations of the idea that confounds gold with wealth. The mediæval alchemists attempted to transmute the baser metals into gold and thus accomplish what they called the *magnum opus*; had they succeeded, the result would have been far less important as a chemical discovery than as an economic revolution. In later times, we mark the enthusiasm kindled in the Old World by the arrival of the first gold-laden galleons from America, and the subsequent belief that in the new Eldorado an end would be found for all human misery. A similar idea underlay the complicated systems introduced by most European governments in the sixteenth and seventeenth centuries to cause the influx of money into the countries that had none, and prevent its exportation from those that were well provided with it. Even to-day, the anxiety with which statesmen and financiers watch the exportation and importation of coin, caused by variations in the imports and exports of goods, is fundamentally due to the same conception of the importance of money.

But if we ask the economists whether or not money is a superior kind of wealth, the answer will be entirely different from the popular opinion. In fact, the first impetus to the growth of a scientific political economy was the protest against the popular conception of money, regarded by the earliest economists as a mere prejudice. The science had scarcely been founded when Boisguillebert, in 1697, declared, "It is quite certain that money is not a good of itself, and that its quantity has nothing to do with the opulence of a country." Since then economists have shown little concern about the amount of money, and maintained that it is a commodity like all other commodities, and even inferior to others because it is in itself incapable of satisfying any want directly, or of affording any pleasure; it is consequently *the only commodity of which we may say that its abundance or scarcity is a matter of perfect indifference.* If there are few pieces of money in a country, each one will have a greater purchasing power; if there are many, the purchasing power of each will be smaller. So what does the quantity matter?

These two opinions, however contradictory they seem, may easily be reconciled. The public is right from the *individual* point of view — the only one which interests it; economists are right from the general or *social* point of view. The distinction here involved requires some explanation.

Every piece of money must be regarded as a ticket or order, drawn on the sum-total of existing wealth, giving the bearer the right to claim a part of this wealth not exceeding the value indicated on the coin.[1] It is clearly our individual interest to possess as many of these "orders" as possible; the more we have the richer we are. We know very well that, in themselves, these "orders" can neither satisfy hunger nor slake thirst. Long before economists had pointed out this truth, legend taught the same principle in the tale of King Midas, who died of hunger although surrounded by wealth which his own folly had turned into gold. Nevertheless, we regard these "orders" as far more convenient than any other kind of wealth, and we are right in doing so.

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[1] Coins, however, represent orders or tickets that are superior to ordinary credit instruments for the reason that they carry their own guaranty with them, inasmuch as the value of coins is, in part at least, assured by the value of the metal contained in them. "If you know how to read," says Bastiat, "with the eyes of the mind, the inscription which a coin bears, you will clearly distinguish the words: Give to the bearer a service equivalent to that which he has given to society, a value that is disclosed, proved, and measured by that which I myself contain." We must add that we cannot without some restriction accept the optimistic postulate that every piece of money represents a *service rendered by its owner.*

Given the present organization of society, the person who desires to obtain an object that he has not produced (and the immense majority of people are thus situated) can get it only by means of two operations: *first*, by exchanging the product of his labor, or his labor itself, for money; *second*, by exchanging this money for the object desired. These two operations are called *selling* and *buying*. The second of them, purchase, is very simple; by means of money a desired object may easily be obtained. The first process, sale, is much more difficult; an object, even of great value, cannot at all times be readily exchanged for money. Hence the possessor of money occupies a more favorable position than the possessor of any other commodity; in order to satisfy his wants he has but one operation to perform, and this operation is an easy one. The possessor of any other kind of goods must accomplish two operations, one of which is comparatively difficult. It has been well said that a particular commodity corresponds only to a *special and determinate want*, while money corresponds to an *indeterminate and universal want*. The owner of a very useful commodity may not know what to do with it. The possessor of money, on the other hand, is never thus embarrassed; he is always able to find some one to accept it, and if by chance he is at a loss how to make use of it at once, he still has the simple expedient of keeping it for a more favorable opportunity. With other commodities this expedient is not always possible.[1]

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[1] Money, besides being the only *direct instrument of purchase*, possesses another very important quality: it is the *common means of paying debts*. No

But if, instead of considering the position of an individual, we regard the whole mass of individuals constituting society, the point of view changes, and the economist's thesis (that the amount of money in a country is a matter of indifference) is more correct. Little do I care for a tenfold increase in the amount of money in my possession, *if the same increase takes place for all the other members of society.* For in such an event I should be no richer than before; since wealth is purely relative I should not be able to obtain a larger amount of goods. The sum-total of wealth out of which our claims or "orders" are paid would be no greater than before, and each "order," *i.e.* each piece of money, would entitle me to a share only one-tenth as large. In other words, the purchasing power of each coin would be one-tenth as great; or, all prices having been multiplied by ten, my position would not be changed.

Yet, *in their relations with each other*, particular countries as well as particular individuals gain by being well provided with money. If the amount of money in this country should be multiplied by ten, there would be no change in the wealth of Americans as compared with each other, the increase being equivalent for all; but the country as a whole would be more favorably situated as regards trade with foreign countries. The economists who, in their zealousness to overthrow the mercantile system, have denied this, are mistaken. It is of course true that an abundance of money in this country would cause its value to fall here, but it would still retain, at least for a while, its former purchasing power in foreign

other wealth enjoys this singular power, for law as well as custom regards money as the only means of payment. Under the prevailing industrial system, everybody is a debtor for a more or less considerable sum. Now the possession of goods worth more than the sum-total of a man's debts may be useless, if at the required time he is unable to meet his outstanding obligations by means of that particular form of wealth called hard cash. It sometimes happens that men "fail," despite the fact that when all reckonings are made their assets are found to exceed their liabilities. Is it surprising, then, that so much importance is attached to a commodity on the possession of which our credit and our commercial honor may at any moment depend?

markets; and we might thus use our increased supply of money to purchase goods abroad.

The economist's thesis that the quantity of money is a matter of indifference is not perfectly true until we extend our purview so as to embrace not only many individuals and many nations, but *all mankind.* We may then assert with perfect truth that the discovery of gold mines a hundred times richer than those now known would not benefit man at all. Nay, such a discovery would rather be a disadvantage; for as gold would then be worth no more than copper, we should be compelled to load our pockets with as cumbersome a kind of money as Lycurgus sought to force upon the Lacedæmonians.[1]

III. Disturbances caused by Fluctuations in the Value of Money

Price, as we have seen, is only one of the many possible ways of expressing exchange value. Although we often employ one of these terms for the other, it is inadvisable to confound them. To believe, for example, that when the price of a commodity is the same in two places, its value is necessarily the same, or, inversely, to believe that when the price of a thing has varied, its value must also have varied to the same extent, may be a gross error.

If the value of gold and silver is different to-day from what it was yesterday, it is evident that the value of any other object, *measured in gold and silver*, must also have changed; that is to say, its price has varied to a degree inversely proportionate to the change that has taken place in the value of the precious metals. Suppose that the length of a yard-stick is reduced by one-tenth. Henceforth, all objects measured with it appear to be longer; yet in reality they are no longer than before, because the apparent change is only an illusion produced by a contraction of the unit of measurement. Similarly, if gold and silver lose one-tenth of their value (because, let us say, of their abundance), it is evident that the price of all objects, *i.e.* their value expressed in money, must have increased.

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[1] Adam Smith declared that "the most abundant mines of precious metals would add nothing to the wealth of the world, as a product whose value is based on its scarcity is necessarily depreciated when it abounds."

We may therefore formulate the following law: *Every fluctuation in the value of money causes a proportionate inverse fluctuation in prices.*[1]

As the quantity of gold and silver is the principal factor affecting the value of money, we may add this second formula, which is, however, open to more exceptions than the first: *Every fluctuation in the quantity of money causes a proportionate change in prices.* If, for example, the quantity of money in a country should be doubled, we may be sure that, all other things being equal, prices will rise considerably; it would be unsafe, however, to maintain that they would be precisely doubled.[2]

It is consequently very difficult to tell whether or not the value of commodities has *really* changed, for the only measure we have is itself subject to variations. So it may happen that an increase in wages, for instance, is due not to a real rise in the value of labor, but to a fall in the value of money, in which the wage of labor is paid. Several devices have been suggested for detecting and correcting these apparent variations in value which are due to variations in the standard. The most customary method, however, is that known as the system of "index numbers."

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[1] Is the inverse statement true? Can we say that every fluctuation in prices means an inverse fluctuation in the value of money? Yes, if the change of prices is *absolutely general.* No, if the change is not general; for in this case a change in the prices of particular objects must be due to circumstances concerning these objects themselves.

[2] This second formula, called "the quantity theory of money, has lately been adversely criticised and even expressly denied; but, we believe, without reason. We must, of course, be careful to add the condition, "all other things being equal," thus indicating that quantity is not the only factor that influences the value of money. The development of exchange, the growth of population, the substitution of instruments of credit for metallic money, and, above all, the *increased or decreased rapidity of circulation* (which is equivalent in its effects to an increase or decrease in quantity), constitute just so many causes which may affect the utility of money and thus alter its value, independently of any change in the quantity thereof.

Horace White's "Money and Banking" (first ed.) contains an interesting chapter on the quantity theory of money.

Suppose that a list were prepared of all commodities without exception, indicating the prices of all these commodities at a given time. Now suppose that after ten years or a hundred years we should prepare a new list of these commodities and their current prices; and, after comparing the new list with the old, suppose we should find that all prices *without exception* had increased 50 per cent. We should then declare that the value of money had really fallen 33 per cent. Since, under these conditions, an object which formerly had cost two dollars now costs three, we may say that three dollars now have the same value as that previously possessed by two, and that money has lost one-third of its value.

This conclusion is justified by the fact that *a general and uniform rise in prices* can have but one of two explanations. Either we must admit that things are what they seem to be, and that all commodities really have undergone a general and parallel rise in prices; or, we must acknowledge that the value of one commodity — money — has fallen, no alteration having taken place in the value of other commodities. Now which of these two explanations is preferable? Common sense permits of no hesitation. The second explanation is simple and comprehensible, whereas the first is highly improbable because of the extraordinary combination of circumstances which it necessarily presupposes. Is it reasonable to imagine the existence of some influence which can simultaneously cause a uniform change in the value of objects which are entirely dissimilar as regards their utility, their quantity, and the method of their production? What conceivable cause could, simultaneously and to a similar extent, raise the price of silk and of coal, of wheat and of diamonds, of lace and of wine, of land and of manual labor, and of all other things that have little to do with each other or that are in fact entirely independent? To adopt such an explanation as this would be just as unreasonable as to maintain that the Ptolemaic system explains planetary motion better than the Copernican theory. For planetary motion also may be explained in two different ways: either by the assumption that the whole universe turns about our own earth from the east to the west, or simply that our own earth revolves in the opposite direction. Even if there were no direct proof of the latter explanation, it would not be reasonable to hesitate for a moment in the choice of one of these solutions. Is it natural to suppose that planets so different in their nature and so far apart as the sun, the moon, and the stars, move around this small earth of ours in such a way as to keep their respective places and distances from each other, like soldiers on parade? The very same kind of logic is involved in the supposition that all prices can rise simultaneously and uniformly. Such an occurrence may be reasonably explained only as a kind of optical illusion, an *apparent* change caused by a *real but opposite* change in the value of money.

It must be admitted, however, that an absolutely general and uniform rise in prices never takes place. As the value of each object is to some degree independent of that of other objects and consequently has its own causes of variation, what we really do observe in the economic world is that the prices of different commodities vary in different degrees. Some prices rise, others remain stationary, and still others fall. Yet if, during any period, skilful calculations should show that there had been an average rise of say 10 per cent, this phenomenon, for the reasons given above, could be explained only by an equal and inverse change (*i.e.* a fall) in the value of money. Economists have recently attempted a calculation of this nature by preparing lists of "index numbers." These lists include the principal commodities, and the price at a given epoch is taken as the starting-point. A list is prepared for each of the years under study, and a comparison of totals indicates whether or not prices as a whole have increased or diminished. To simplify the use of these calculations, it is customary to express the total for the year which serves as the basis of comparison as 100; the totals for the other years are then expressed upon this basis of calculation. The result of this simplification is a table like the following: —

1860	100
1870	144
1880	105
1890	94
1900	93

Such tables as these, invented by an Englishman named Newmarch, do not always give conclusive results. It is, however, conceivable that we may thus ascertain, by means of the fluctuations in prices, the variations in the value of money. It would even be possible to publish, at regular intervals, tables of these fluctuations which would serve as an official guide for the correction of the errors resulting from the use of gold and silver as measures of value. Thus a debtor who in 1860 had borrowed $100 might be released from his debt upon paying $93 in 1900, — the amount due being determined by the rise or fall in the value of money.[1]

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[1] Tables analogous to those referred to were proposed as early as 1822 by Lowe and in 1833 by Scrope.

The Austrian economist Menger has proposed a bolder solution than that mentioned above, viz. the creation of a money whose value would be invariable and consequently beyond the influence of the general law of values. He believes that we could accomplish this by issuing money in quantities so adjusted as to neutralize the causes of fluctuations as soon as they should arise.

We regard this scheme as theoretically reasonable, on the condition that the money be issued in the form of international paper money; metallic money, the raw material of which is produced by nature, could hardly be issued in quantities strictly determined in advance. (Refer to the section on Paper Money.)

IV. Whether Metallic Money will continue to decline in Value

The depreciation of metallic money during the past thousand years is a fact proved by all sources of historical information that touch upon this point. This depreciation has been enormous.[1] At the time of Charlemagne the value of silver was approximately nine times as great as it is to-day. Shortly before the discovery of America it was still six times as great. At the time of the French Revolution it was more than twice what it is to-day. The prediction that its value will continue to decline indefinitely seems, therefore, to be perfectly legitimate. Human industry, moreover, is every day becoming more ingenious in discovering the places in which nature has stored away her treasures, and also more expert in exploiting these stores economically. Neither silver nor gold is as rare as it is supposed to be. There is gold and silver everywhere, — in infinitesimal quantities, to be sure, but the rapid progress of metallurgy is continually lowering the point below which it does not pay to extract the metal from the ore. It is therefore probable that the precious metals, becoming more and more abundant, will continue to fall in value.

It may, of course, be maintained that the demand for these metals will be increased by the growth of population and the development of exchange, and that this increased demand

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[1] The decline has not been steady, but intermittent; at times the value of money has risen. According to d'Avenel's "Histoire des Prix," the historical curve of values is as follows: —

850	9
1375	3
1500	6
1600	2½
1750	3
1890	1

The most striking fact brought out by these figures is the great fall in the value of money during the sixteenth century, due to the discovery of America.

will counterbalance the effects of an increased supply. But we must remember that this factor is in turn more than counterbalanced by the improvement and extension of the credit system and modern means of transportation and intercourse. In the great modern financial centres we have succeeded in almost entirely suppressing the use of metallic money, and are now carrying on a vast amount of business by means of credit devices and clearing-houses, practically without the intervention of money.

Is this increase in the quantity of money, and the subsequent depreciation of its value, a cause for regret or rejoicing? Is it a matter of any importance? It may be claimed that an abundance of money makes nobody richer in reality, and that it is likely to make money constantly grow heavier in proportion to its value,—as though gold had been changed into lead. But even this difficulty may be obviated by the use of paper money and checks. Again, supposing that the so-called precious metals should become common metals, is it not likely that other rarer metals would be found to take their place?[1]

Yet this is *not* a matter of indifference. In reality, the continued depreciation of the monetary standard is a phenomenon of great social importance, the effects of which must be regarded, after careful consideration, as beneficent. First of all, the depreciation of money results ordinarily, as we have seen, in a rise of prices. Now, a rise of prices is a stimulus to production; it sustains the spirit of enterprise; it is favorable to an increase in wages; it acts like a tonic, and may be regarded as a symptom of economic vigor.[2]

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[1] Spectrum analysis reveals the existence of new metals much more precious than gold. We are familiar with metals that cannot yet be employed to any extent, but which we shall doubtless soon learn to utilize by means of electric furnaces. Lithium and zirconium, for instance, cost $7500 per pound, and vanadium $11,800.

[2] A curious proof of this may be found in new countries, like those of South America, where the inconsiderate increase of the amount of paper money caused an enormous rise of prices. Producers and business men

The depreciation of money, moreover, is favorable to the debtor classes, inasmuch as they can pay their debts by giving a value less than that which they received; for then it means — to repeat a familiar expression used in referring to the discovery of mines in America — an easy way to pay old debts. It operates in just the same way as a fall in the rate of interest, or, better yet, like an unavoidable depreciation of capital. Now, it is very desirable that the old debts shall be wiped out, and not be permitted to weigh upon the descendants of the borrowers.[1] This is particularly desirable for governments, which are the greatest debtors and the only really perpetual ones.

rejoice at this rise, and in general are very hostile to the financial measures that would remedy it, as, for example, the withdrawal of paper money. Their opposition is of course ill-founded, but their attitude is none the less characteristic.

[1] Mr. Herckenrath, in the Dutch translation of this book, criticises the doctrine sustained in this section. He does not regard the depreciation of precious metals as always desirable. Von Ihering also, in his "Kampf ums Recht," declared that "to sympathize with the debtor is the clearest sign of the weakness of an epoch." We acknowledge, later on, in the section on the "History of Loans at Interest," that nowadays the lender may indeed be entitled to quite as much sympathy as the borrower, especially when the lender is a small investor and the borrower is a large corporation. Nevertheless, the growing power of money seems to us always to constitute a serious social danger, and the depreciation of the metals appears to be a fortunate corrective of this tendency.

[Professor Gide is fond of the idea that a perpetual depreciation of money is a perpetual stimulus to trade. It should be observed, however, that the creditor who knows that he is going to be exploited will recoup himself in the interest rates. If this is not the case, high prices will enable debtors to pay their debts with less wealth than they borrowed, and thus permit the partial repudiation of these debts. The most elementary commercial honesty requires that the debtor shall pay back (aside from interest) just what he received, — no more and no less. But if, for example, I have borrowed a thousand dollars, and prices subsequently rise to such an extent that a thousand dollars will purchase only as much as could previously be bought for nine hundred dollars, it is evident that in repaying a thousand dollars I am returning less value than I received; in other words, I have been enabled to repudiate one tenth of my debt. A large amount of capital loaned in this country consists of the savings of people with small incomes, and repudiation would bear heavily upon them. — C. W. A. V.]

It is true that to the very degree that the depreciation of money is favorable to the producer and to the debtor, it is prejudicial to the consumer and to the creditor. But even this effect we regard as desirable. For if the consumer is also a producer, his increased expenditure is easily counterbalanced by the increased value of his products or by higher wages.[1] If he is simply a consumer, and not a producer, so much the worse for him; the rise of prices will only put a heavier, perfectly legitimate burden upon him. Again, if the creditor has given credit for short periods, such as are customary in commerce, the depreciation in money will scarcely affect him. But if his credit is for a long period or for perpetuity, *i.e.* if it constitutes the basis of a permanent, independent income (such as that provided by government bonds, land rent, long-term railroad bonds, or municipal loans), it is no more than right that the gradual reduction of his income should warn him that he is playing the part of a parasite, and that if he wants to retain his social position or transmit it unimpaired to his descendants, he would do well to play a more active part or teach his children to do so. Some time ago a great financier of the French Restoration, Laffitte, who was by no means a socialist, speaking of the man who lives on a fixed and independent income, said: "He must either work or reduce his wants. The capitalist plays the part of the idler; his task is to economize, and it is not a severe one."[2]

To prove the validity of what we have said, let us suppose that our prediction regarding the fall in the value of precious metals will not be fulfilled,—and we must admit that our predictions are by no means infallible. What would be the result? We should then observe effects opposite to those that we have indicated: a constant fall in prices would burden industry and discourage the spirit of enterprise; governments would be oppressed by the weight of a rapidly increasing debt and destined to become bankrupt; the idle classes of money-owners would grow rich by their idleness more surely and quickly than the other classes could by their thrift. Such a state of affairs as this would be most liable to provoke a social revolution. Let us therefore rejoice in the depreciation of the precious metals, so long as it lasts; it serves at least as a lubricant for the wheels of the economic mechanism.

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[1] Unfortunately, the change of wages due to a rise in the price of commodities does not follow very rapidly upon this change of conditions; it is likely to take place some time later, *pede claudo*, wherever laborers are not organized. But where the workers are organized into trades unions, they generally demand, and frequently obtain, a speedy readjustment of wages.

[2] The intelligent members of the "retired" capitalist class have several means of escaping the effects of a fall in the value of money; they can, for example, invest their funds in productive enterprises, or purchase credit instruments *below par*.

V. The Conditions which should be fulfilled by all Good Money

All legal money should have a metallic value strictly equal to its nominal value. This is the most important principle regarding money.

We know (page 221) that money has a twofold function: it is the sole *instrument of purchase*, and the only *instrument for the payment of debts*. Both of these functions are the result of custom, but both require the sanction of law. In fact, only the law can oblige a creditor or seller to receive a certain kind of money in payment of debts or for goods. This legally privileged position of money makes it what is called *legal tender*. But the legal tender quality is based on the condition above indicated. Here, let us say, is a ten-dollar gold piece. By stamping on this coin the designation "ten dollars," as well as the seal of the United States, the government intends to certify that this coin is really worth ten dollars, and that everybody shall accept it for that amount without fear of misrepresentation. Should the coin not contain this value, the government commits a forgery. During many centuries, unfortunately, many governments and rulers have shown but little scrupulousness in this respect; but at the present time it is a matter of national dignity and good faith in which no government would dare be found at fault.

Every piece of money must therefore be regarded from two points of view. *As a coin, it possesses a fixed value, marked upon its surface. As an ingot, it has a value equivalent to the market price of the metal it contains.* (There is of course a market price for gold and silver, as well as for wheat and cotton.) Whenever these two values coincide,—whenever, for instance, the metallic disk weighing 258 grains and containing 232.20 grains of pure gold (*i.e.* whose *fineness* is nine-tenths) has an actual commercial value of ten dollars,—we may say that this money is *good* money or sound money.[1] It remains to ascertain how this perfect coincidence can be established and maintained. Two possible conditions of the monetary system should be examined in this connection:—

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[1] It would appear, however, that coined gold should be worth a little more than bullion, for the reason that all objects are worth more when manufactured than when in the raw state, and that the difference should be equal to the cost of coining. This is in fact the case; but the cost of coining is so small that it makes practically no difference. It amounts to one-fifth of one per cent of the value of the coin. In France, for example, the twenty-fran gold piece is made of gold worth 19.96 francs. Some governments transform metals gratuitously into money; or, in other words, the government bears the actual cost of coinage, which is sometimes called *brassage*. England is an example of this. Whenever a government charges more than the actual cost of coinage, and regards its Mint as a source of revenue, the term *seigniorage* is used to designate this additional charge. The name is derived from the fact that rights of coinage in the middle ages were often made a most valuable prerogative of the "seignior," or feudal lord. Where the government pays the brassage we sometimes also speak of *gratuitous coinage*, which must be sharply distinguished from *free coinage*. The latter term does not mean that coining is done for nothing, but that *any private person* has a right to bring bullion to the Mint in any quantities and have it coined (whether he is charged seigniorage or not). It should also be noted that sometimes the term seigniorage is used to include brassage.

Gold bullion is converted into coin at the United States mints free of charge except for the alloy contained therein. Formerly the seigniorage on silver subsidiary coins was 5 to 7 per cent. Since the great decline in the price of silver took place, it has become more than 100 per cent. At one time the government could buy only 16 pounds of silver bullion with one pound of gold, but now it can buy more than 35 pounds for the same amount.

I. If the value of the ingot is higher than that of the coin; if, for instance, the gold is legally worth only ten dollars, and the weight of metal contained in it is worth eleven or twelve dollars, the money is said to be *heavy*. This is an excellent defect; but it is nevertheless a defect, and, as we shall see, it may have rather serious consequences. But we need not greatly fear such a state of affairs as this, for the following reasons: (*a*) Governments seldom coin too heavy money; should this occur, it can only be due to inadvertence, inasmuch as it involves a loss. To coin ten-dollar gold pieces with metal that is worth eleven dollars would be as ruinous as for a manufacturer to make rails for twenty dollars a ton with steel that is worth twenty-two. (*b*) But even if this condition existed, as the result of circumstances to be explained later (for example, a sudden rise in the price of the metal), it cannot last very long; for as soon as the public discovers that ten-dollar gold pieces are worth eleven dollars as bullion, everybody will regard them as bullion, *i.e.* as merchandise, and will sell them by weight so as to reap the profit thus obtainable. This process will continue until the gold coins have completely disappeared. As we shall point out later, this state of affairs occurs frequently in countries having a bimetallic system.[1]

II. If the value of the ingot is less than that of the coin; if, for example, the coin is legally worth ten dollars and the gold it contains is worth only nine, money is said to be *light*. This eventuality is much more to be dreaded than the preceding one, for two reasons: (*a*) Because, unlike the opposite condition of affairs, it is liable to lead a government into temptation. To make ten-dollar pieces out of ingots that are worth only nine dollars is an alluring proposition for an impecunious and not too scrupulous government; and numerous governments have, as a matter of fact, succumbed to the temptation. In France, Italy, and in most of the countries of continental Europe, before the great development of modern commerce, the debasement of money was a favorite device of weak or profligate monarchs.[1] (*b*) Because, once such light money has entered into circulation, it is not forced out of circulation by the pressure of economic forces (as in the case of heavy money), but it remains most persistently; and, as we shall see when we take up *Gresham's law*, it is one of the most difficult things in the world to drive light money out of circulation.

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[1] The commercial ratio of gold and silver at the time the United States Mint was founded in 1793 was the same as the mint ratio,—15 to 1. But in 1795 the commercial ratio of the two metals rose to 15.37 to 1, and continued to advance until it reached 16.25 to 1 in 1813. The result was that gold coins had a greater bullion value than their coinage value and were exported. In 1850, on the other hand, the silver dollar was worth $1.02 in gold and had entirely disappeared from use. (See the section on Gresham's Law.)

To maintain the identity of metallic value and legal value, it is customary under every good monetary system — and this is a principle of capital importance — to give anybody the right to have metal coined into money by the Mint, if he

[1] "Both in quantity and quality, in weight and in fineness, the circulating money was pinched and robbed, until the actual amount of pure metal bore sometimes a ludicrously small ratio to the original fine contents of the coin. The English 'pound' was once a pound-weight of silver. The pound of standard silver is now coined into 66 instead of 20 shillings. The 'pound scots' of which we read had but one thirty-sixth of its original weight. The florin and the Spanish maravedi were once pieces of gold. The former is now a piece of silver; the latter a piece of copper." — FRANCIS WALKER, "Political Economy."

It is well known that the monetary unit under the old régime in France was called the *livre* (pound); but it is not so generally known that it derived its name originally from the fact that in the days of Charlemagne it actually represented the weight of a Carolingian pound of silver (weighing 408 grammes); *i.e.* it represented a weight equal to that of 82 present-day francs. How did it fall little by little to five grammes, which was the weight of the *livre* at the end of the old régime, and which is now the weight of the *franc*? Solely by a continual series of emissions of lighter and lighter money. Each monarch "clipped" a little off the weight of the old *livre*, while endeavoring to maintain its former legal value.

McMaster, in his "History of the People of the United States" (Vol. I, pp. 190 *et seq.*), gives an interesting account of the American monetary so desires. This is called *free coinage*. As long as it exists, the identity of values is guaranteed; for if the value of the gold piece ever rises above that of the metal in it, everybody will hasten to avail himself of the profit to be made by having metal coined into money. Everybody will buy gold and take it to the Mint to be converted into coin, until the scarcity of gold and the increase in the number of gold coins has reëstablished the identity of the two values. It should be possible to smelt good money without any loss of value. Good money can stand the "fire test." Here we may apply the economic axiom that whenever two objects can be transformed into each other at will, they must necessarily have an equal value.

There are, however, in all countries certain kinds of coin which do not fulfil the preceding requirement; *i.e.* their intrinsic value is inferior to their legal value. These coins are called *subsidiary* or *token money*. They are usually coins of small value, generally made of copper, but sometimes of silver; they are not customarily used for large payments, but only for fractional amounts. The legislator, therefore,

system at the close of the Revolutionary War, — its chaotic state, and the practices of counterfeiting and clipping. "The clipping was worse than the counterfeiting, for scarce a coin could be found . . . which had not at some time been subjected to the shears. For much of the clipping and paring the people were to be held responsible; but the government itself had, in an hour of dire extremity, resorted to the same practice as a desperate means of increasing its funds. When some coins were sent to Timothy Pickering to be used in payment of the debts of the quartermaster's department, there came with them orders that he himself should clip them, as the government was too poor to bear the charge of the goldsmiths. . . . The clipping done by the government differed from the clipping done by the rogues in that it stopped when the last grain the law would allow had been taken. At this point sharpers and counterfeiters began their work, and went so far that it was no longer safe to take any sum of money in discharge of a debt till every coin in the batch had been duly weighed in the balance. The day, indeed, seemed near at hand when, as Washington said, every man would be constrained to travel with a pair of balances in his pocket, or run the risk of receiving gold and silver at one-fourth less by weight than by count, and when, as Teague complained, there would be five quarters to every dollar."

does not feel bound under these conditions to insist on the observance of the above monetary principle. But in temporarily abandoning the principle of the equality of values, he at the same time withholds the qualities of good money. He refuses to confer upon token money the quality of legal tender; no one is compelled to take it in payment, save in limited quantities.[1] In addition to this, he suspends free coinage for token money; otherwise everybody would have metal coined into subsidiary coins, or token money, in order to gain the difference between the metallic value and the legal value. The government reserves to itself the right to issue such amounts of token money as in its judgment are required by the needs of the community; and it should never issue an excessive quantity of this money.

VI. Gresham's Law

In every country where two kinds of legal money are in circulation, the bad money always drives out the good.

This is one of the most curious laws of political economy, named after the commercial adviser of Queen Elizabeth, who is credited with having discovered it three centuries ago. Long before Gresham, however, Aristophanes had pointed out and analyzed the strange fact that men seem to prefer bad money to good money.[2] What makes this fact, and the law which formulates it, still more remarkable is that it would be totally incomprehensible in the case of any other article than money. It is indeed difficult to understand why men should prefer bad to good merchandise. The economic organization of modern society, marked by liberty of labor and by free competition, is based entirely on the postulate that men will under all circumstances prefer the articles that are of the best quality and that best satisfy their wants. Why, then, should men act differently when money is the article in question?

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[1] Silver coins smaller than one dollar are legal tender to the amount of ten dollars in one payment. Coins of nickel and copper are legal tender to the amount of 25 cents in one payment.

[2] "The public has often seemed to us to treat the wisest and the best of our citizens just as it does old and new coins. For we do not use the latter at all, except in our own houses or abroad, though they are of purer metal, finer to look at, the only ones that are well coined and round; on the contrary, we prefer to use vile copper pieces, struck and stamped in the most infamous fashion." — Aristophanes, "Frogs," vv. 718–726 (Brunck's ed.).

Our astonishment ceases when we reflect that money is not destined, like other wealth, either for our consumption or for production, but solely for exchange. Of two fruits, we prefer the more luscious; of two watches, the one that keeps the better time. But of two pieces of money, unequal in quality, it matters little to us whether we use the one or the other; they are not for our personal use, but only employed to pay our creditors and our tradesmen. Hence it would be foolish to use the better money for this purpose; on the contrary, it is to our interest to choose the worse, and this is precisely what we do. Our choice is of course conditioned upon the assumption that the creditor or tradesman shall not have the right to refuse the inferior money; in other words, the bad money must have paying power as well as the good. When this is the case, *i.e.* whenever both kinds of money are legal tender, Gresham's law is applicable.

This explains why bad money continues in circulation, but not why good money disappears. Where does the good money go? It disappears in three different ways: by *hoarding*, *payments abroad*, and *sale by weight*.

(1) *Hoarding.* When people want to put money aside for possible emergencies, *i.e.* when they wish to keep it for themselves, they do not pick out the bad pieces to save. On the contrary, they choose the best, because these offer the most security. The panic-stricken people who wished to hoard money during the French Revolution did not waste their time by saving depreciated paper money, — the so-called assignats, — but laid aside good gold coins. The contemporaries of our own Revolutionary War did not save the next to worthless "continental" paper money, but whatever

metallic money they could get hold of. Banks do the same thing, preferring to increase their supply of good rather than that of poor money. In this manner a considerable amount of the good money may disappear from circulation. This first cause of the disappearance of good money, however, is only temporary.

(2) *Payments abroad.* These are more important in their effect than the preceding cause of the disappearance of good money. Although a country never pays in coin for more than a small part of its imports, yet it is always necessary to send a certain amount of specie abroad. Now, although we may legally pay our debts to our compatriots with bad money as well as with good, so long as both are legal tender, we do not have this alternative in paying for purchases made abroad. As the foreign creditor is by no means compelled to accept our national money, he takes it only for the weight of fine metal it contains, *i.e.* for its commercial value. Therefore we cannot send him light money. We keep the light money for use at home, where it is as serviceable as good money, and we reserve the good money for foreign commerce.[1]

(3) But good money disappears most rapidly from circulation because of its *sale by weight.* Selling money by weight appears to be a peculiar occupation in which to engage, and its usefulness does not seem easily demonstrable. Nevertheless, it is very simple. As soon as a rise in the value of gold gives gold coin an intrinsic value higher than its legal value, — as soon as gold money is worth more as metal than as coin, — it is clearly profitable to stop using it as money, and to regard it as bullion. It is, therefore, withdrawn from circulation, and finds its way to the market for precious metals. Should the value of bronze, for example, rise con-

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[1] Professor Leroy-Beaulieu has very well summarized this whole matter in the formula: *local* money drives out *universal* money.

It is noteworthy that Aristophanes observed the two facts that the public, which prefers to use bad money in exchange, nevertheless employs good money "in its own houses" and "abroad," *i.e.* for hoarding and for foreign trade.

siderably, is it not almost certain that numerous bronze articles, such as bells, cannons, and statuettes, would be melted for the value of the metal they contain? Or again, if the value of paper increased very greatly, would not many books be taken down from our library shelves and sold by weight as so much paper? It is just the same with money. When a precious metal rises in value, the pieces of money coined from that metal lose their character of money and become simple commodities that men can sell at a profit.

Gresham's law is applicable in the following cases: —

(*A*) Whenever *worn* money is in circulation together with *newly coined* money. It was in this case that the law was first discovered by Sir Thomas Gresham. New coins had been struck to take the place of those in circulation, which were greatly depreciated (far more by clipping than by wear); and it was noted with dismay that the new coins speedily disappeared, while the old ones seemed to be more abundant than ever. Unless a government resorts to frequent recoinages, it will encounter great difficulties in replacing old and abraded coins by new ones.

(*B*) Whenever *depreciated paper money* is in circulation together with *metallic money*. Under these conditions, if the depreciation of the paper is at all considerable, coin is driven out of circulation on a very large scale. During the whole period of the depreciation of United States notes (1862–1879), we were exporting gold in large quantities. This left at home only paper money, because our paper money would not circulate beyond the borders of the nation.[1]

(*C*) Whenever *light money* is in circulation together with *good money*, or even when *good money* is in circulation together with *heavy money*. In this case the lighter money drives out the other.

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[1] Similarly, of late years, nearly all good Italian money was driven into France. Vainly did the Italian government adopt various measures to cause its return, and to obtain from the French government a prohibition of its circulation in France, where it is accepted equally with French gold and silver money. But Italy succeeded only by attacking the evil at its foundation, — by withdrawing her paper money, or at least by depriving it of the quality of legal tender.

Of the three cases here enumerated, the last is by far the most important; it occurs in almost all countries which have adopted both a gold and a silver coinage. This case will be investigated in the discussion of monometallism and bimetallism, which we purpose to study in the following sections.

VII. The Necessity of employing Several Metals, and the Difficulties which result therefrom

The discussion which has long been waged on this celebrated subject does not turn, as might be supposed, on the question whether a country should employ several metals or only one metal in its monetary system. That question does not even arise. For it is evident that every civilized country is obliged to employ, simultaneously, coins of gold, of silver, and of copper or some similar metal. We could scarcely think of using gold alone. The one-dollar gold pieces authorized to be coined in 1849 are now no longer issued because they are too small to be used conveniently. And if these pieces, weighing only 25.8 grains, are too small, a gold cent would be a mere impalpable atom! Nor can we employ copper exclusively, unless we are willing to revert to the days of early Rome; for a piece of copper worth five dollars weighs about thirty-five pounds. Silver, though less inconvenient because its value is considerably higher than that of copper, would not suffice by itself. Our silver dollars are almost too large and cumbersome, and our silver three-cent pieces, not coined since 1873, are too small for ordinary use. We are therefore compelled to use all three metals simultaneously. But there is no need to use all three as *legal tender*. In fact, one of them — copper — never possesses that quality; it is always simply token money or small change. Only the other two, therefore, are of interest in this connection. Should both precious metals receive the character and attributes of legal tender, or should only one be thus employed? This question, formerly called that of the single or double standard, is now more correctly termed the problem of *monometallism* or *bimetallism*.

If we confer the rank of legal tender on only *one* of the two — say gold — there is no difficulty. In this event silver coinage, with copper coinage, is relegated to the rank of token or subsidiary money; a purely conventional value is given it, but no one is obliged to take it in payment. When gold coinage is the only legal money, it alone needs have perfectly equal legal and intrinsic values.

If we allow both silver and gold coins to assume the character of legal tender, the situation becomes far more complicated. For a better understanding of the difficulties which may arise in the actual employment of both metals simultaneously as legal money, let us briefly review the monetary history of the United States.

In 1792 our statesmen, following the example of the countries of Europe, adopted the double standard of gold and silver. At Hamilton's instance the legal ratio was fifteen grains of silver for one grain of gold. Soon afterward, silver cheapened so that 15.61 grains were required in the bullion market to purchase one grain of gold. As a result, gold went out of circulation, and the country was thrown practically upon a silver basis. Gold, which had begun to grow scarce in 1810, entirely disappeared in 1817. In 1822 Mr. Raguet, an economist of the period, wrote to the *National Gazette* that "although the coinage of gold continues to be large ($1,319,030 in 1820), not a gold coin is anywhere to be seen in circulation." The facilities of the Mint were simply used by merchants to certify the weight and fineness of gold for exportation.

In view of these facts, various projects for a change were brought forward in Congress, and in 1834 the so-called Gold Bill provided for a ratio of 1 to 15.60; but when it came up for discussion an amendment was moved making the ratio

1 to 16, and this amendment was adopted without a division. Then another amendment was offered making the ratio 1 to 15.625, and was supported on the ground that it was the true market ratio, and that it would keep gold and silver in concurrent circulation. The adoption of the ratio 1 to 16, it was contended, would drive silver out of circulation. Yet this ratio was finally adopted, making the United States a gold-standard nation in practice, although the double standard was retained in theory. Since 1837, when other changes were made, the weights of the coins and their legal ratio have remained unchanged. The silver dollar was given 371.25 grains of pure metal, and the gold eagle 232.2 grains; this is a legal ratio of 15.988 to 1. This ratio of practically 16 to 1 — almost as celebrated a formula in economics as the formula for π in geometry — then overvalued gold so decidedly that silver coins began to disappear from circulation. In 1850 the silver dollar was worth $1.02 in gold and had entirely disappeared from use. In the early fifties the discovery of gold in California and in Australia caused the annual output of gold to increase fourfold.[1] Silver, on the other hand, became still more scarce in consequence of the development of trade in India, which absorbed vast quantities of this metal. The result was that gold continued to cheapen so that Congress in 1853 had to debase the fractional silver coins in order to prevent them from being melted and sold for bullion. The legislation of 1834 and 1837 had thrown the United States upon a gold basis, for while the legal ratio was 16 to 1, the commercial ratio until 1873 was about 15⅛ to 1.

In 1870 Congress again began to consider the question of revising the coinage laws. The silver dollar had then been out of circulation for more than a generation, and was worth $1.027 in gold. By the act of 1873 the silver dollar was dropped from the list of authorized coins, and the gold dollar was definitely named as the unit of value.

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[1] The average annual world's production of gold from 1841 to 1850 was valued at about $37,000,000; from 1851 to 1860 the annual output averaged nearly $140,000,000.

At about the same time, however, another great change took place in the production of precious metals. The output of gold decreased with the gradual exhaustion of the gold mines of Australia and California. The discovery of the "bonanza" silver mines in the West greatly increased the production of silver; the world's annual output of this metal was increased by about half. Then Germany adopted the gold standard, demonetized her silver money, and cast upon the market the silver thalers which she no longer wanted. Once again the relative value of the two metals was changed, but this time in the opposite direction. In the market for precious metals one could purchase, for a pound of gold, not merely 15 or 16 pounds of silver, but 17, then 18, then 19, and in 1876 nearly 21 pounds of silver. In other words, silver had lost a fourth of its value compared with gold. It was henceforth evident that every ingot of silver which constituted a silver coin underwent a proportionate depreciation. In 1876 the gold value of 371.25 grains of fine silver (the amount contained in a silver dollar) was only 89 cents.

Now people saw that if the coinage of the silver dollar had not been stopped by the law of 1873, the cheapened dollar might have come back into circulation and driven out gold. There arose a demand for the free and unlimited coinage of the silver dollar, and, yielding to the subsequent agitation, Congress in 1878 passed the "Bland-Allison Act." This act provided that the United States should purchase monthly not more than $4,000,000 and not less than $2,000,000 worth of silver bullion, to be coined into silver dollars of the previously customary weight. These silver dollars were made full legal tender. Under this act the Treasury always purchased the minimum amount, and placed $378,166,793 in circulation between 1878 and 1890. Yet this law failed to raise the value of silver, for in 1889 the silver dollar was worth only 72 cents.

In 1890 the Bland-Allison Act was repealed and the "Sherman Act" passed. The new law required the Secretary of the Treasury to purchase monthly 4,500,000 ounces of fine silver bullion at the market price, which was not to exceed $1 for 371.25 grains. Treasury notes were issued in payments for this metal; they were to be redeemable on demand in coin, and to be a legal tender in payment of all debts, except where otherwise expressly stipulated in the contract. But even these increased purchases of silver failed to sustain its price, which, after a brief rise, fell to 60 cents in 1893. Between 1890 and 1893 the net exports of gold exceeded $150,000,000, in spite of the fact that our exports of merchandise greatly exceeded imports. The banks began to hoard gold and to pay their obligations in paper or in silver. The government was compelled to pay out large quantities of gold, while its revenues were composed chiefly of paper and silver. In 1893 the Sherman Act was repealed. At the present time the currency of the United States is the most heterogeneous to be found in any civilized country, although the act of March 14, 1900, was intended to somewhat systematize our monetary conditions, to make the gold dollar the standard unit of value, and to maintain all other forms of money issued or coined by the United States at a parity with this standard.[1]

The most striking lesson to be drawn from our monetary history — and the same is true of the monetary history of France, England, and Germany — is the constant change in the market value of the metals and the frequent recoinages and changes of system to which it has given rise. The concurrent circulation of the two metals can continue only so long as the market ratio coincides with the legal ratio. We are thus led to inquire: Must we be incessantly recoining first one metal and then the other, in order to fit their weights to variations in the value, and thus preserve the necessary requisite of good money, namely, strict equivalence of intrinsic and legal value? This seems to be the inevitable conclusion. But to attempt this would be manifestly impracticable and absurd.[1]

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[1] Consult Horace White's "Money and Banking," 2d ed., Boston, 1902.

VIII. Why Bimetallist Countries really have but One Money

As we have just seen in the account given of our own monetary history as a nation, every bimetallist system presents the serious disadvantage of not being able to maintain, for both metals, that identity of intrinsic and legal value which should be the characteristic of all good money. According to the variations in the value of the two metals, one or the other of them is incessantly becoming too heavy or too light.

It may be thought, perhaps, that this disadvantage is theoretical rather than practical. "What does it matter," it may be asked, "if our gold or our silver coins have a legal value a little above or a little below their real value? No one notices it, and, in any case, no one suffers from it."

This is a mistake. There is in such a condition of affairs a practical disadvantage, and, more than that, a real peril. The lighter money will gradually drive the heavier out of circulation, so that every country which is nominally under the double-standard system falls, as a matter of fact, into the singular position of *never being able to keep in circulation more than one kind of money, and this one always the worse.* A regular movement of flux and reflux carries away the metal that is high in value, and brings into the country that which is low.* This is indeed nothing more than the application of Gresham's law, of which our own monetary history is a conclusive demonstration. In 1837, when gold fell in value, and in 1850, when it fell still lower because of circumstances mentioned in the preceding section, silver money continued to disappear and to be replaced by gold coins. The same thing took place in France under the second empire, when the so-called napoleons were widely circulated. People in France were not much accustomed to this money at that time; it was greatly admired, and the courtiers of the period praised the wealth and glory of the new reign. In reality gold money was so abundant only because it was made of depreciated metal.

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[1] A little reflection will show that it would be sufficient to alter the weight of *only one* of the two moneys, and regard the other as the basis or unit. For instance: we might take the silver dollar as the unit and alter the weights of gold coins according to the variations in its value. But in spite of the simplification, this system would be almost as impracticable as the other.

There is also the possibility of keeping a fixed weight for gold coins, without indicating their value, and hence permitting their value to oscillate freely according to the laws of demand and supply; in some countries this plan is adopted, *e.g.* in Cochin China for the piaster. During the revolutionary period this system was proposed in France, and to-day some economists regard it as the sole possible solution of the monetary problem. But then gold pieces would no longer be real money; they would be nothing more than ingots which circulate like any other commodity. There would be a current price for gold coins just as for cotton and wheat, and it would be subject to the same variations. What complications such a system would introduce into business matters, facilitating all sorts of snares and tricks in dealing with the unsophisticated!

The manner in which gold at that time became so abundant is explained very easily; the following example should make the process comprehensible. The London banker who wanted to obtain silver to send to India naturally tried to get it where he could buy it cheapest. In London, for a kilogramme of gold he could purchase only 15 kilogrammes of silver. But by sending his kilogramme of gold to the Paris Mint he could receive 3100 francs in gold, and then exchange these 3100 gold francs for 3100 silver francs, which weigh exactly 15½ kilogrammes. Thus for his kilogramme of gold he would obtain 15½ kilogrammes of silver.[1]

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[1] The inverse operation was performed just as easily. A Paris banker could collect 3000 silver francs, weighing exactly 15 kilogrammes, and send them to London in exchange for one kilogramme of gold, — 1 to 15 being the ratio of market values. Then he would have his kilogramme of gold sent from London and coined at the Paris Mint into 3100 francs of gold. Thus the gross gain on the transaction was 100 francs, or more than 3 per cent. Even when the cost of coinage (seigniorage) and transportation was deducted, the transaction was still very profitable.

It is easy to understand that this business led to the exportation of silver from France, and the importation of an equal quantity of gold money. This is precisely the way Gresham's law operates: heavy money is replaced by light money. Whole shiploads of silver coins were exported from France to India. They were bought for their weight in silver, to be sold to the Bombay and Madras Mints, and there converted into rupees. During this period these Indian Mints turned into rupees more than 2,000,000,000 francs of French money.

It was not long before there was a veritable dearth of silver money in France. In the old days, prohibitive measures would have been resorted to, and perhaps penalties would have been inflicted on those who exported silver money. But economic science, by pointing out the cause of the trouble, made it possible to suggest a more efficacious remedy. Silver money was disappearing because it was too heavy; it was therefore necessary to diminish its weight or reduce its fineness, and thus, so to speak, clip its wings and make its flight abroad impossible. This step was taken, by common agreement on the part of France, Italy, Belgium, and Switzerland, on December 23, 1865. The standard of fineness for all silver coins, *except five-franc pieces*, was lowered from nine-tenths to 835 thousandths, — a diminution in their value of more than 7 per cent. All these coins then became, and have since remained, token money; according to the invariable principles which prevail in this matter, they have since that date lost their character of legal money. Why was an exception made in favor of the five-franc piece? There was no sound reason for this, but France insisted on the concession. To turn all silver coins into token money would have been entirely to abandon silver money as legal tender; it would have been an out-and-out acceptance of the gold monometallist system, as in England, and such a revolution in the monetary system terrified the French government. The five-franc piece therefore was kept, with its former weight and fineness and character of legal money. Naturally it continued to leave the country, but it could be dispensed with more easily than the smaller change; if necessary, it could be replaced by the gold five-franc piece.

From 1871 on, as we have seen, a reversal was effected in the respective values of the two metals, and the French monetary system was once more thrown out of order, this time in the opposite direction. Gold money became too heavy and consequently began to emigrate; the silver became too light and began to increase in circulation. The operations explained above were renewed, but in an exactly opposite manner and with opposite effects. In order that there shall be no obscurity upon this essential point, we shall repeat the explanation by describing this inverse operation.

A Paris banker procured 3100 francs in gold, either in twenty-franc or ten-franc pieces. This sum made exactly a kilogramme of gold. He sent the money off to London, where one kilogramme of gold, in the market for precious metals, was worth 20 kilogrammes of silver. Our banker, therefore, bought 20 kilogrammes of silver, had them sent to Paris and turned into coin at the Mint. As the Mint coined one kilogramme of silver into 40 five-franc pieces, our banker received 4000 francs in five-franc pieces; his gross profit was 900 francs. Deduct the cost of transportation, seigniorage, and the premium necessary for obtaining gold pieces if they have become scarce, and the transaction was nevertheless a profitable one. Now it is evident that for France this business resulted in a decrease of gold money and an increase of silver money. If continued long enough, the final result would have been the entire substitution of silver money for gold money in circulation.

The nations belonging to the Latin Union (which Greece had joined in the meantime) in 1878 sought to avert this new danger. Just as in 1865 they had stopped the flight of silver money by lowering its fineness, they could now have prevented the departure of gold money by lowering its fineness or diminishing its weight. But the frequent recoinage, first of one money, then of another, would have ended in the disorganization of the whole monetary system. So it was thought advisable to resort to a simpler plan. The convention of November 5, 1878, completely suspended the coinage of five-franc silver pieces. Henceforward the transaction described above became impossible; there was no longer any profit in buying silver abroad, for it could no longer be coined into money in France. This measure, too, fully succeeded in preserving for France her fine supply of metallic gold, which had not yet been perceptibly drawn upon. But, obviously, this convention, which closed to silver a market of nearly 80,000,000 persons and thus reduced its sale, hastened the depreciation of the metal; in other words, it aggravated the evil.[1] Silver, which until then had lost but 10 or 12 per cent of its value, continued to fall until, in 1901, it possessed less than half its original value.

Under these conditions, the free coinage of silver money has not been resumed by the Latin Union, and no one can tell whether it will ever be taken up again. We may therefore say that although the nations of the Latin Union are still legally under a system of bimetallism, they have in reality adopted gold monometallism. *Of all their silver coins, only one is legal tender, and this is the one that is no longer coined!*[2]

IX. Whether it is Advisable to adopt the Monometallic System

After the foregoing explanation, there seems to be no room for hesitation. The monometallic system is infinitely more simple than bimetallism. It avoids all the difficulties that we have just enumerated. Then why not adopt it?

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[1] Since then, many nations have abandoned the silver standard for the gold. (See the following section.) Even India in 1893 gave up the coinage of silver. All these circumstances have accelerated the fall in the value of silver, which in 1901 was, compared with gold, as 1 to 34.68.

[2] This somewhat lengthy account of the Latin monetary system has been reproduced here from the original French edition, because it is not only an excellent illustration of the principles involved, but also an interesting and very important chapter of monetary history.

That is what has been done by the greater number of nations: first England (1816), then Portugal (1854), Germany (1873), Norway, Sweden, and Denmark (1875), Finland (1878), Roumania (1890), Austria-Hungary (1892), Russia (1897), Japan (1897), and Peru (1897). The gold standard prevails also in Egypt and Turkey. All the South American countries except Bolivia and Paraguay have adopted it, but most of them are in reality under the régime of irredeemable paper money. The only important countries having bimetallism are the United States, the Latin Union (comprising France, Italy, Belgium, Switzerland, and Greece), Holland, and Spain. The only countries of importance which have the silver standard are China and Mexico. The latter has the double standard in law but the single silver standard in practice; the same is true of the Central American states, except Costa Rica, which has the gold standard.

Of the bimetallist countries mentioned above, the principal ones are in reality gold monometallist, in the sense that they employ only gold for international exchange. Such is the case for the United States, France, and Holland. We have seen that it is a very feeble tie indeed which binds the Latin Union to a legal bimetallism that is little more than nominal. The same is true of the United States, where the friends of silver have endeavored to establish real bimetallism and to lead to its adoption by other nations. It was through their influence that the Sherman Act of 1890 was passed, obliging the government to purchase a large amount of silver each month. We have seen that this law was repealed in 1893 and that the law of March 14, 1900, expressly states that the gold dollar is the standard unit of value, although the legal-tender quality of the silver dollar remains unaltered.

Why do these nations not cut the tie that binds them so slightly to bimetallism, and adopt monometallism, as other nations have done? There are two difficulties in the way of this step, one a practical matter of cost and the other a matter of principle.

(1) The practical difficulty is that the adoption of the gold standard means the demonetization of silver. For if silver dollars are not legal tender, they must, at least in part, be withdrawn from circulation. It is estimated that there are in this country over 500,000,000 silver dollars, whose metallic value is less than half their legal value. Their withdrawal would therefore cost $250,000,000, and probably more, since such a measure as this evidently would cause a further fall in the value of silver.[1]

(2) The objection on principle is that fluctuations in prices are much more to be feared with a single standard of values than with a double standard. We know that every fluctuation in the value of money immediately results in an inverse fluctuation in prices. (See page 223.) When there is but one money, it is to be feared that these fluctuations will be frequent and abrupt, throwing the whole economic mechanism out of gear and continually provoking crises.

When, on the other hand, two moneys are used for the measurement of values, there arises a sort of *compensatory influence* of the two standards, which is very favorable to the stability of prices and therefore to the prosperity of trade; for in business, stability is of the highest importance. It is somewhat difficult to explain this compensatory influence, but its main significance is not hard to grasp.

Let us simply recall that the principal cause of the superiority of the precious metals as the measure of values consists in the fact that their variations in quantity are small when compared with the total amount in existence at any given time. (See page 217.) The degree of this superiority, due to stability of value, depends on the supply of the metal and the variety of sources which augment it. When this supply consists of two metals, it will necessarily be much larger to begin with. It is, moreover, highly improbable that the circumstances which give rise to a great increase in the production of one metal will simultaneously cause a great increase in the production of the other; hence variations in the total quantity will not be so great or so perceptible. Rises in the level of a river are unlikely to be sudden or dangerous when its tributaries are numerous, and situated in regions that are far distant from each other and entirely different in geological and climatic features. Similarly, it is better that our supply of metal be fed by two sources — gold and silver — than by only one. If there were three or four sources, that would be still better, and *poly*-metallism would be more desirable than *bi*-metallism! If in the fifties there had been but one monetary metal — gold — the discovery of gold mines in California and Australia would have caused the utmost disturbance through an enormous rise in prices. Indeed, such may some day be the effect of gold production in the Klondike and the Transvaal. The *exhaustion* of gold mines would cause an even more formidable perturbation.

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[1] It might be suggested that the government should let the holders sustain the loss. But this would hardly be honorable conduct on the part of the government, which has guaranteed the value of these coins by putting its seal upon them. As a matter of fact the silver dollars, not having met with much favor as a medium of exchange, do not circulate very extensively. Their place is taken by "silver certificates" which are redeemable on demand in coin deposited in the Treasury of the United States. These certificates, especially since the issue of 1886 in denominations of $1, $2, and $5, have a wide circulation; the amount in circulation October 1, 1902, was nearly $460,000,000.

Whether prices are high or low does not matter much; but it is of the highest importance that prices shall not rise or fall abruptly.

It is also desirable that the value of money shall tend in general to fall rather than to rise, because a continual, gradual reduction of the power of money acts as a social equalizer; it stimulates the activity of those that live on independent incomes, it relieves debtors, and it tends to diminish the advantage of persons having money over those that possess none. But when there is only one metal, it is probable that the value of money will, on the contrary, tend to rise.

Bimetallists are not only unwilling to abandon the double standard, but they also endeavor to convert the gold-standard nations, and maintain that none of the difficulties that are feared would arise if bimetallism were adopted by *international agreement* among the great powers, on the basis of 16 to 1 or on the basis of any other fixed ratio. This assertion seems preposterous to the economists of the classical school. They declare that the relative values of gold and silver do not and can not depend *ne varietur* on the will of any government, or even on the will of all governments combined, any more than the respective values of oxen and sheep, or of wheat and oats. The value of things is regulated solely by the law of demand and supply, and is wholly beyond the scope of legislative control. The precious metals, they assert, are no exception to the rule.

In our opinion, this line of argument adopted by the classical school requires some qualification. Gold and silver, being used principally for money, are not commodities that may be likened to oxen or sheep or any other merchandise. When, therefore, we speak of the demand for precious metals, we mean almost exclusively the demand made by a dozen or more government Mints. Hence there is nothing absurd in the supposition that if these dozen buyers should agree among themselves to fix the price of gold and of silver, they could succeed in so doing. If they declare that they will all buy gold at the rate of $240 per pound Troy, and silver at $15 per pound Troy, it is highly probable that they will impose this price on the market. The classical school says that it would be absurd to decree that an ox shall always be worth ten sheep, or that a bushel of wheat shall be worth the same as two bushels of oats! Certainly it would; the market for these commodities is immense, and each one of us, by his tastes and desires, helps to regulate the current prices of these goods. But if in the whole world there were only a dozen people who consumed beef or mutton, it is highly probable that by concerted action they could fix prices at the ratio of 1 to 10, or at any other ratio that pleased them.

Such a result as this is in fact accomplished, in spite of far less favorable conditions, by commercial speculators and large dealers, who combine with one another in trusts and similar organizations, and who sometimes arbitrarily determine prices.[1]

No doubt this line of argument must not be carried to absurd extremes. It is manifestly not in the power of governments, even were they unanimous, to decree that the ratio between gold and silver henceforth shall be equality, or that it shall be reversed and that a pound of silver shall be worth more than a pound of gold. Such a decree would be a dead letter, because the industrial use of the precious metals, though less important than their use as money, nevertheless must not be neglected; this circumstance would be sufficient to prevent the choice of an extraordinary ratio. All the governments in the world could not make silver worth as much as gold; men and women would never consent to pay as much for a silver ring as for a gold one.[2]

But within reasonable limits we do not hesitate to believe that an international agreement would be efficacious in determining the relative values of the two metals, and consequently in eliminating the principal disadvantage of bimetallism; namely, the disappearance of one of the two metals.

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[1] We could give numerous proofs of the influence exerted by law on the prices of precious metals; for instance, the stability of the ratio between the two metals during nearly three-quarters of a century in France; or, contrariwise, the fall of silver caused by its demonetization in Germany, later aggravated by the agreement that suppressed its coinage in the Latin Union, and, recently, its continued depreciation because of the discontinuance of silver coinage in British India.

[2] Let us add that if, upon this hypothesis, the values of gold and of silver were successfully maintained at the same level, the gold mines would soon be abandoned because the cost of production of gold is much greater than that of silver. Hence such a measure would cause the production of silver to increase very rapidly, whereas the gold mines would soon be abandoned because they would bring no profits. Thus, sooner or later, the production of gold would cease. Similarly, if the law should declare that an ox shall be worth no more than a sheep, and this basis of values were successfully enforced, we may be sure that no one would continue to raise oxen.

For whither could it disappear, when in all countries it is subject to the same law?

Is such an international agreement as this practically possible? That is another question. It does not appear so, in view of the fact that all nations seem to regard it as a matter of national honor to adopt and maintain the gold standard. Moreover, the nations that have adopted a legal ratio for the two metals did not establish the same ratio, — in Austria-Hungary it was fixed at 1 to 18.22, in Russia 1 to 23.25, and in Japan 1 to 33⅛. Besides, the English government, whose coöperation is regarded as indispensable, has always rejected the idea of international bimetallism.

The best plan for the bimetallist countries appears to be the one they have adopted; namely, the maintenance of the *statu quo*. About ten years ago, when the production of gold was decreasing rapidly, this policy involved some danger. The question then arose whether there would be enough gold for all the nations desiring to employ it as their monetary standard, and whether those who delayed in adopting it might not discover that they had entered the field too late; but in the last part of the nineteenth century the output of gold increased very considerably, and there is every reason to believe that its increase will continue with a rapidity proportionate, or more than proportionate, to that of silver.[1] For this reason the difference in the value of the two metals will probably decrease, and a change will take place opposite to that of 1870–1895. Hence the problem of bimetallism has lost much of its acuteness. There is no immediate peril for the bimetallist nations in remaining bimetallist, and if they should decide later to adopt gold monometallism, this step will be less difficult then than now. The solution of the monetary problem is every day becoming easier and less urgent.

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[1] In ten years the annual production of gold has been tripled, principally by the South African mines. The world's annual production, which in 1883 fell below $100,000,000, rose in 1899 to over $300,000,000. It is true that the South African War considerably reduced the output of the last few years; but the construction of the great trans-Siberian railroad will probably increase the output of the Siberian gold mines. The access to very rich but hitherto almost inaccessible gold deposits in Alaska is being facilitated, and many auriferous districts are being discovered in various parts of Africa. The placer-gold yield of the Klondike (Yukon) increased from $2,500,000 in 1897 to $16,000,000 in 1899.

The production of silver has of course also increased enormously, so that it is difficult to tell which of the two metals will fall more rapidly in value. (See page 228.)

Yet as gold has become practically the sole international money, the bimetallist nations must see to it that they possess a sufficient stock.[1] If they fail to do this, they will be obliged to resort to the expensive process of purchasing gold with which to make payments abroad. (See the section on Foreign Exchange.)

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[1] To attain this object, several countries (Russia a few years ago, and now Spain) require that customs duties be paid in gold coin.

CHAPTER III — PAPER MONEY

I. Whether Metallic Money can be replaced by Paper Money

Did we not already know that paper money could be substituted for metallic money, we might have some difficulty in believing it possible, and the title of this section would cause some surprise.

It is manifestly impossible to substitute for wheat or coal or wealth of any other kind mere pieces of paper on which are inscribed such words as "One Hundred Bushels of Wheat" or "One Hundred Tons of Coal." Such pieces of paper could not provide either food or warmth. If, moreover, we used coins merely to hang around our necks, as Oriental women wear their gold or silver sequins, even then our scraps of paper would be useless as substitutes for metallic money. But we know that money is unlike any other wealth, and that in our civilized societies its utility is not of a material nature. A piece of money is nothing but an "order" giving its possessor the right to claim, under certain conditions, a share of existing wealth. (See page 220.) The part played by an "order" can be taken by a piece of paper quite as well as by a piece of metal. To the financier Law, whose premature experiments led France into bankruptcy, is due the credit of having perfectly understood and demonstrated this possibility.

The subject will be clearer if we distinguish three kinds of paper money: —

(1) *Representative* paper money is that which merely represents an amount of coin that has been deposited somewhere, — say in the safes of a bank. This kind of paper

money is thus secured by the coins for which the paper is simply a substitute.[1] Our American gold and silver certificates, guaranteed by gold and silver deposits in the Treasury of the United States, are good examples of this kind of paper money. Gold coin, especially in large amounts, is cumbersome and difficult to handle; hence the Secretary of the Treasury has been authorized to receive deposits of gold coin in sums of not less than $20 and to issue certificates therefor. These certificates are essentially receipts which show that so many dollars in gold coin have been deposited with the Treasurer of the United States, and that the holder of the certificate is entitled to receive them on demand. Gold certificates, however, are not legal tender, but are receivable for customs, taxes, and all public dues. On October 1, 1902, about $300,000,000 worth of these certificates were in circulation. Silver is even more cumbersome than gold, and a plan for substituting certificates was authorized by the laws of 1878, 1886, and 1900. On October 1, 1902, about $460,000,000 worth of these certificates were in circulation. Like gold certificates, they are receivable for all public dues, but are not legal tender. — This form of paper money seems to present no difficulties.

(2) *Fiduciary* paper money is that which takes the form of credit instruments. It is, properly speaking, a promise to pay a certain sum of money. It is evident that the value of the paper depends on the solvency of the debtor. If perfect trust can be placed in his ability to pay; if, in other words, the signature and promise is reliable, there is no reason why this paper should not circulate as easily as money. We shall see that bank notes usually fall in this category, except in certain cases which we shall mention hereafter. The

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[1] "One of the earliest mediums of exchange," says Jevons, "consisted of the skins of animals. The earliest form of representative money consisted of small pieces of leather, usually marked with an official seal. It is a very reasonable suggestion that when skins and furs began to be found an inconveniently bulky kind of money, small pieces were clipped off, and handed over as tokens of possession. By fitting into the place from which they were cut, they would prove ownership."

"national banks" of the United States issue money of this sort, guaranteed by government bonds deposited with the Treasurer of the United States. There were, on October 1, 1902, national notes in circulation to the amount of over $350,000,000.

Fiduciary money (or, as it is sometimes called, *redeemable* or *convertible* money), when issued by the government, is secured only by the general solvency of the treasury department, and not by a specific deposit, dollar for dollar. President Hadley says: "Experience proves that this is not nearly so safe a reliance as that on which the coin certificate is based. . . . At the very best, there is danger that the assets on which the government relies for the payment of such notes will fail in an emergency. . . . The assets of the government are, for the most part, permanent investments of a kind which it is not easy to sell at short notice. When a fiscal emergency arises, the dangerous power, possessed by the legislature, of declaring such notes a legal tender even if they are not redeemed, is a constant menace to financial stability."[1]

(3) *Conventional* paper money represents nothing and confers a claim to nothing. The name "paper money," in its strict sense, is generally confined to this category. It consists of strips of paper issued by a government having insufficient metallic money. These strips of paper, to be sure, bear such inscriptions as "Ten Dollars" or "Twenty Dollars," and thus, like the preceding kinds of paper money, have the appearance of promises to pay certain sums of money. But every one knows that this is pure fiction, and that the government will never redeem these promises, because it has no money for that purpose.

Conventional paper money (also called *irredeemable* or *inconvertible* paper money because there is no provision on the part of the government to redeem it or exchange it for coin) may be regarded as money on which the government has charged approximately a hundred per cent seigniorage.

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[1] A. T. Hadley, "Economics," page 191. (Putnam, 1898.)

This kind of money either is issued as such directly by the State, or is the result of the degeneration of money that was originally convertible. Convertible money sometimes loses the quality of convertibility, or possesses it only to a limited extent, and thus becomes inconvertible. "The paper may be declared to be redeemable in coin; that promise may even be borne upon the surface of the paper; but if provision be not made so that, in fact, every holder of a note can obtain coined money therefor at will, the paper is inconvertible. No paper money is convertible, the full, immediate and unconditional redemption of which is not, at all times, within the choice of the holder."[1]

It is especially in this third form that the substitution of paper money for metallic money seems hard to understand; certainly it is not a very simple matter. It has, however, frequently been accomplished in many countries; experience has amply proved that the substitution is possible, and that the public will readily submit to the process. Russia and the South American Republics have applied this system for many generations. Why should they not? If, by the decree of the lawgiver and the consent of the public (which to a certain extent is always necessary for the acceptance of legislative decrees), these strips of green, white, or blue paper have the power to pay for goods, to liquidate debts, and to pay taxes, why should they not circulate just as well as white or yellow coins? Do they not serve the very same purposes as coins?

Yet we must admit that between the value of paper money and that of metallic money there will always be several important differences. The value of the former is always more *precarious*, more *restricted*, and more *changeable*. We shall briefly explain each of these three defects.

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[1] Francis A. Walker, "Political Economy," page 153.

The "greenbacks" and "confederate notes" issued during the Civil War are examples of this kind of paper money. For seventeen years, *i.e.* from 1862 to 1879 the greenbacks were not worth their face value; in 1864 it took two dollars and eighty-five cents of paper to buy one dollar of gold. The government did not begin to redeem them until 1879.

The step from putting out promises to pay that are not redeemable, to issuing paper that the government does not even pretend to redeem, is an easy one, and many are the governments which have taken it. Money of the latter sort is called *fiat money*. In the colony of Rhode Island, for instance the issues read as follows: "This bill shall be equal to money."

(A) The value of paper money is *precarious* because it is dependent on the will of the legislator and can be annihilated as well as created by law. Should the law demonetize paper money, the holder will have in his possession nothing but bits of paper, for when paper money has lost its legal value it has lost all. The same thing is not altogether true of metallic money; for besides its legal value it has also a natural value due to the physical and chemical properties of the metal it contains. Doubtless if gold and silver were demonetized *in all countries*,[1] metallic money would lose the greater part of its value. Let us not be deceived in this respect. The fall in the value of silver money, caused by its demonetization in several countries, is more than sufficient proof of our assertion.[2] Nevertheless, even though the precious metals were demonetized everywhere, they would still possess utility and value, because they could be employed for industrial purposes; and as this employment of them would increase with the fall in their value, it is possible that the decline in value would be smaller than we anticipate. Suppose that the metals fell to a third or a fourth of their present value. The holder of metallic money then would still possess a certain amount of value of which no law could deprive him, and this amount would probably be higher than it could have been, had any other commodity been chosen as legal money.

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[1] We say "in all countries" because if it were demonetized in only one, there would be no perceptible decrease in its value. This is the circumstance that offers the holder of metallic money the greatest security.

[2] Many economists, however, harbor an illusion in this respect, or, at least, do not put their readers on their guard against it. Most of them imply that the government seal impressed on gold and silver coins merely indicates their value in much the same way that store-keepers put a mark on goods. But the declaration that the 232.20 grains of fine gold and 25.80 grains of alloy constituting our "eagle" are worth ten dollars, not only is *declaratory* of value but also *determinative* of value. These metals have acquired the larger part of their value because the will of the legislator, ratified (as it were) by the will of society, has chosen gold and silver as money; they would lose half, and probably more, of their value, as soon as this sanction or this ratification should cease to exist. Aristotle very clearly perceived this, when he said, in the "Nicomachean Ethics," Book V: "It was by virtue of a voluntary agreement that money became the instrument of exchange. . . . It is called *νόμισμα*, from the word *νόμος*, signifying law, which indicates that it is founded, not on nature, but on convention; and that human laws, which

(B) The value of paper money is more *restricted*, that is to say, its circulation is limited to a narrower area than metallic money. As its value is conferred upon it by the laws of a particular nation, it cannot be expected to circulate beyond the boundaries of that nation.[1] It cannot, therefore, be employed in international exchange. The value of metallic money, on the other hand, being determined by that of the metal it contains, is approximately the same in all civilized nations. Therefore it can circulate everywhere, — if not as

have thought fit to employ it as a measure of value, may, at pleasure, set this use of it aside, and employ some other measure in its stead."

But we must not therefore conclude, as some economists (notably Cernuschi) have done, that the value of the precious metals is *purely conventional*. In order that any object shall have a recognized utility and value, it is of course necessary that the will and choice of men be directed toward this object; but human will and choice are in this case determined by *natural causes*, and therefore the resulting value is also natural and by no means purely conventional. The choice of men in singling out the precious metals for this purpose was not arbitrary, but due to definite qualities which the precious metals possessed, and which we have already pointed out. Even wheat owes its value to the fact that most civilized men have chosen this cereal among all others as their staple food; and if ever they substituted another, we may say that the value of wheat would decline. But no one would therefore maintain that the value of wheat is purely conventional. It is the same with the precious metals. The only difference is that it is easier to use something else as money, than to find a food to substitute for wheat.

[1] It is of course true that American paper money will be accepted by bankers abroad, or by foreigners who are familiar with our currency. But in this case it is received not as money properly speaking, but as an instrument of credit, *i.e.* with the intention of having it *cashed*, just as a note signed by Rothschild would be accepted in any country.

coined money, at least as bullion. This is the reason why metallic money is essentially a universal and international money, while paper money is essentially national.

(C) Finally, the value of paper money is more *changeable* than that of metallic money, for the excellent reason that the quantity of paper money depends solely on the will of the government, while the quantity of metallic money depends on natural resources, — principally on the discovery of new mines. The former, therefore, is issued by man, the latter by nature. An imprudent, careless government can depreciate paper money by issuing more than is needed, and too often this is exactly what occurs. But no government on earth can depreciate metallic money in this manner. Supposing that the government is prudent enough to issue only a limited quantity of paper money, this cannot remove the disadvantage to which we refer, inasmuch as the need for money varies from time to time and according to circumstances. It frequently happens, for example, that a period of great business activity requiring an increase in the instruments of exchange is followed by a period of depression. There may have been no change in the amount of money; yet in the first period there will probably be a dearth, while in the second period there is liable to be an excess of paper money.

It is true that the discovery of exceptionally rich gold and silver mines may at any time throw a large amount of precious metals on the world's market, and thus cause a fall in the value of metallic money. It is also true that when a period of depression follows a period of great activity, even the metallic money which has been drawn into a country may prove to be excessive in amount. This has occurred more than once. But these variations are never so great as those due to changes in the quantity of paper money. The precious metals are sought and accepted everywhere, and if they are in excess in one country they naturally flow into others. Sudden increases in the amount of paper money, however, being always confined within the limits of one nation (which may be regarded as a reservoir from which there is no outlet), always have disastrous consequences.

The above three disadvantages, which render paper money so imperfect an instrument when compared with metallic money, would vanish almost entirely if all civilized countries should bind themselves: —

(1) To confer the legal tender quality on only one kind of money, — paper money which shall be accepted everywhere.

(2) Not to augment its quantity, or, to augment it only in a measure fixed in advance and calculated for each nation, — perhaps according to the increase of its population.

In this case the value of paper money, though still conventional or artificial, would rest on almost as broad a basis as the value of metallic money itself, because it would be founded on the unanimous consent of all nations. As its quantity would be regulated according to scientific forecasts, and not by mere chance, its value would probably be subject to little variation. Indeed, it is likely that the money of the future will be of this kind.

The fact that paper money is artificial money is by no means a sign of inferiority. Quite the contrary! A watch is an artificial instrument for measuring time, while the sun is a natural instrument; this circumstance does not prevent the former from being, for this purpose, superior to the latter. It is even a characteristic feature of progress that natural instruments are replaced by artificial ones: the rude club by the rifle, the horse by the locomotive, sunlight by electric light, the warmth of the sun by artificial heat.

II. Whether the Creation of Paper Money is equivalent to the Creation of Wealth

The men who first conceived the idea of making paper money[1] flattered themselves that they were increasing the general wealth, just as if they had discovered a gold mine or accomplished the *magnum opus* of which the ancient alchemists had dreamed, namely, the transmutation of the baser metals into gold.

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[1] We do not know who invented paper money. It was known in China from time immemorial. Marco Polo described it on his return from that

This idea was evidently absurd, for it assumed that wealth can be created out of nothing. Yet the idea has been ridiculed too much, inasmuch as it is perfectly true that the emission of paper money can to some extent increase the wealth of a nation. How can it do this? Adam Smith first offered an explanation. He observed that the metallic money circulating in a country is unproductive capital, and that the substitution of paper money, by removing this capital from commerce and making it available for other uses, permits its application to productive purposes. In a comparison that has since become celebrated, he declared that to do away with metallic money would be like doing away with roads; if we found the means of travelling in the air, we could restore to cultivation and production all the surface of the earth that is now devoted to transportation by land.

Adam Smith's ingenious comparison, however, leaves some obscurity in our minds. We can see readily enough that when roads and railways are no longer required, the land they occupy may be cleared and put under cultivation; but it is not so easy to see what can be done with metallic money when it is dispensed with for currency purposes. Will it be melted down and made into gold and silver plate or jewelry? That would be but little economic gain. What would really result is this: the money would be invested abroad, and thus bring considerable revenue. The United States, for example, now has a capital in the form of gold and silver coins amounting to over $1,500,000,000. Half of this is stored in the govern-

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fabled country in the fourteenth century. Antiquity has left us several specimens of money (if not of paper, at any rate of leather) having a purely conventional value; this was called *siege money* because it had been issued usually in beleaguered cities to take the place of metallic money which was becoming scarce.

ment treasuries and is represented in circulation by the certificates to which we have already referred. This enormous capital undoubtedly facilitates trade; but it yields no profit. Suppose now that we find a means of substituting paper money for these coins; then we should have all this metallic money to invest abroad, either by purchasing stock, railway shares, land, and ships, or by improving and extending foreign industry and agriculture. These investments would, in one way or another, produce 4 or 5 per cent interest, and thus result in an increased annual revenue of $60.000,000 to $75,000,000.

Such a plan as this may be compared to that of a householder who, in possession of several thousand dollars' worth of silverware, decides that porcelain would serve him quite as well, and therefore sells his silver in order to increase his income by employing the proceeds productively. The same line of conduct is pursued by those industrious persons who, realizing that money does not yield any profit while lying idle in their pockets or in their safes, keep no more of it in their houses than is absolutely necessary, and invest all the rest. The wealthiest persons are often those who have the least money at home. While the thrifty peasant has a drawer full of gold and silver coins, the millionnaire has simply a check-book with which to pay for his purchases.

The same thing is true of nations. While France employs $1,600,000,000 in metallic money, England, more accustomed to the use of credit devices than France, employs about $600,000,000 in coin. Yet England cannot be said to be poorer than France.

When, therefore, the question is asked, "Does it lie within the power of a government or a bank to increase the wealth of a country by issuing paper money?" it is not perfectly correct to answer with an unqualified negative. As a matter of fact, the thing is feasible. Paper money may increase the wealth of a nation *by the total amount of metallic money in circulation.* The replacing of $1,500,000,000 of United States coin by an equal amount of paper money would actually increase our wealth by that amount; but it would not be increased a cent more. The limit here indicated, moreover, is a theoretical one; in practice it would be daring to go quite so far as this.

But it must be observed that the gain could not be made by all countries at the same time. One country could utilize its supply of metal productively by selling it abroad. But if every country wished to do this, it is evident that none would succeed: gold and silver specie, offered by all countries seeking to get rid of it, and demanded by none, would be a drug on the market and would lose their value.[1]

Nevertheless, even accepting this very improbable hypothesis as true, there would still be some advantage to mankind in abandoning the use of precious metals as money. For there would henceforth be a saving of all the labor that is devoted to the maintenance of the supply of metals, — the labor of mining, of turning the bullion into coin, of filling up the voids caused each year by abrasion and accidental losses, and of keeping up the supply at a level that is required by an ever increasing population. This labor is no small item. The extraction of ore from the mines, smelting, transportation, coinage, etc., are operations that demand the labor of many thousand workers. Do away with metallic money, and all these laborers will be available for production along other lines, and the total productive power of humanity will really be increased to this extent.

In short, then, we see that the answer to the question at the head of this section is quite different from that formerly given. We must no longer say that paper money increases the wealth of a nation *to the extent that it increases its supply of money*, but, on the contrary, *to the extent that it permits of reducing its supply of metallic money.*

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[1] It is in this respect that Adam Smith's comparison is faulty. For if we discovered a means to dispense with roads, the result would be different: all countries could simultaneously benefit from the use of land that had previously been devoted to transportation but which then could be used productively.

Such is the *economic* advantage that a nation may obtain by the emission of paper money. If now we ask what is the *fiscal* advantage resulting from its emission by a government, the matter is more simple. When a government falls short of money, the creation of paper money is a very convenient way to pay its contractors, its employees, and its expenses, *without being obliged to borrow, and consequently without being required to pay interest.* When a government is in this predicament, its credit is probably not of the best, and if it were obliged to borrow at interest the rate would be very high. Therefore paper money effects a saving that is not to be despised.[1] Many governments have resorted to this expedient, and have in general succeeded well enough, provided of course that in their issues they did not exceed the limit we have laid down, fixed by the amount of coin in circulation. Every issue which goes beyond this limit must cause a depreciation of the paper and a loss to the government and the nation compared with which the economy due to the use of paper money is a mere bagatelle.

III. The Dangers resulting from the Use of Paper Money, and the Way to Prevent Them

The advantages that paper money can procure for a country or for a government are real enough, but they may be dearly paid for; indeed, they may cost more than they are worth. Some economists have gone so far as to say that paper money is the greatest plague of nations, and that it is more injurious to society than a terrible disease is to an individual.[1] It must be noted, however, that the evil effects are due rather to the imprudence of governments than to the nature of paper money itself.[2] Indeed, they are produced only when a government, overstepping the proper limit, issues more than is needed. The need may be measured fairly well by the amount of metallic money generally in circulation. Nevertheless, impecunious governments are sorely tempted to go beyond this fatal limit; many have done so, and have ended in bankruptcy.[3]

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[1] During the Franco-Prussian War the French government had need of money, and issued notes to the value of $300,000,000. If it had borrowed this sum, it would have been obliged to pay about 6 per cent interest, or $18,000,000 a year, whereas the issue of paper money involved no expense but the cost of manufacture. But instead of issuing the paper directly, the French government chose, for valid reasons, to use the intermediary services of the Bank of France, for which it paid 1 per cent commission, amounting to only $3,000,000 a year. For the nation, this issue of paper money was very acceptable, because (on account of exportation and hiding) there was insufficient money in circulation. Thus the issue of these notes was a benefit both for the government and the public. But the amount issued was not enough, for when several private banks formed an association to issue fractional notes of a value less than five francs, the public was glad to accept them.

It may safely be asserted that in the present state of economic science there is no excuse for a government overstepping the limit. There are several signs, familiar to the economist and the financier, which should warn us of the danger, even when it is far off, and which are surer indications than the pilot obtains from sounding-lead and landmarks.

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[1] While the paper-money experiment was going on during the revolutionary period of American history, Mr. Pelatiah Webster declared that "We have suffered more from this than from every other cause of calamity; it has killed more men, pervaded and corrupted the choicest interests of our country more, and done more injustice, than even the arms and artifices of our enemies."

[2] Experience has taught that when paper money is issued through the intermediary of banks, and not directly by the government, it is usually done far more carefully and involves less danger. This is due to the fact that bankers are more vigilant in defending their own interests and those of their stock-holders, than the Government Treasury is in defending the interests of the public. Hence most governments have issued money through the banks. (See the section on Differences between Bank-notes and Paper Money.)

[3] Every student of history knows the lamentable story of the French *assignats* issued by the Convention and the Directory to the enormous amount of 45,000,000,000 francs, which was probably twenty times the amount of coined money then in France. Even had these issues consisted of good gold and silver pieces, they would nevertheless have caused a great depreciation of metallic money, since the amount in circulation would have been twenty times what was required. We can imagine, then, what must have been the depreciation of this paper money! In February, 1796, the hundred-franc ($20) assignat fell in value as low as seven cents, and a pair of boots sold for 4000 francs ($800).

(1) The first of these signs is the *premium for gold.* As soon as paper money has been issued in quantities too great for the needs of a community, it begins (by virtue of the universal law of value) to be depreciated; the first effect of this depreciation, the first sign that indicates what is coming, — although the general public may not be aware of it, — is that metallic money begins to command a premium. Metallic money is not affected by this incipient depreciation of the monetary system. Why should it be? Gold and silver retain their former value. Bankers and money-changers begin to seek bullion to send abroad, and they will pay a small premium to obtain it. This is the time for a nation's financiers to keep their eyes open!

(2) The second sign is a *rise in the rate of exchange.* Bills payable abroad, *i.e.* foreign bills of exchange, are sold in all the great commercial centres of the world. Like any other commodity, they have a market price that is quoted at the stock-exchange; this is called the *rate of exchange.* These bills, or claims on foreign countries, are always payable in gold or silver, — generally in gold, because gold is the international money. If, for example, the United States is under a paper-money system and its paper begins to be depreciated, bills on London or on Paris will rise in price just like gold itself, since they are in fact equivalent to gold. When, therefore, our ten-dollar gold piece commands a premium of 2 per cent and is sold for $10.20, a hundred-dollar bill of exchange on London will rise to an equal premium and will sell for $102. (See the section on the Rate of Exchange.)

(3) The third sign is the *flight of metallic money.* However slight the depreciation of paper money may be (and unless this defect is immediately remedied by the withdrawal of the excessive paper), all the metallic money will speedily disappear from a country. This phenomenon is invariable and

therefore characteristic; it occurs in all countries where paper money has been issued in excess. This is what happened in Russia, and in all the states of South America, which are, nevertheless, gold and silver mining countries. The reasons for this, which we explained when dealing with Gresham's law, need not be repeated here.

(4) The fourth sign is a *rise in prices.* This appears later on, and shows that the evil has already become a grave one, and that the permissible limit has been greatly exceeded. While the depreciation of paper money is still slight, say 2 or 3 per cent, prices (except those of the precious metals) are not affected. Retail dealers, and even wholesale dealers, will not alter prices for so trifling a difference as this; and even if they do so, the public will not worry about it. But whenever the depreciation of paper money reaches 10, 15, or 20 per cent, then all tradesmen and all producers raise their prices correspondingly.[1] The evil, which until then had been latent, suddenly bursts forth and is revealed to all.

(5) Finally, we must note that the old prices continue the same for those persons who can pay in metallic money, if

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[1] Business men and producers are not opposed to this rise in prices; they become accustomed to it so readily that they approve of the paper-money system and oppose its abolition, because that would result in a return to the old prices. When the United States was under a paper-money system, there was an important political party, significantly called *inflationists*, which did everything in its power to maintain that system. At the present time there is a similar party in the Argentine Republic. (For the explanation of these facts, see page 220.)

As paper money, especially that which is for any reason inconvertible, rises or falls in value almost constantly, prices will be constantly changing. If a manufacturer or merchant does not know what the price of his goods will be a week ahead, he is cut off from any legitimate estimate of his coming receipts or expenses, and is obliged to guess at the course of the market. Speculators who think that the rise in prices will continue, purchase large stocks of goods in order to sell out when the rise comes. This may create an excessive demand, tending to advance prices still further. Although all prices have risen, there are many people who believe that when prices rise they are richer than before; they are worth more in "dollars," but they overlook the fact that dollars will now buy much less than before. (See J. L. LAUGHLIN, "Elements of Political Economy," page 167.)

there is any of it left. For metallic money has lost none of its former value; on the contrary, compared with paper money it has gained. Hence we observe the curious phenomenon of *two different sets of prices* for commodities. Every article now has two prices, one payable in metallic money, the other in paper money. The difference between the two prices exactly measures the depreciation of the paper money. Thus, for example, in Russia an article that sold for eight roubles in paper would bring only five or six roubles in silver, because of the depreciation of Russian paper money.

As soon, therefore, as a government perceives the premonitory signs, namely, a premium for gold and a rise in the rate of exchange,[1] its first duty is absolutely to forbid the emission of any more paper money, since the extreme limit has already been reached. If this limit has unfortunately been overstepped, and we discover the ominous symptom of double prices, it must endeavor to retrace its steps and destroy the paper money that returns to the public treasury, until there is the right amount in circulation. Such an heroic remedy as this, however, involving the partial suppression of the national revenue, is not within the power of all governments. They cannot resort to it unless they can afford to sacrifice a part of their revenue; in other words, the public revenue must be in excess of public expenditures.

IV. American Paper Money

The experience of our own country with paper money of all kinds has been sufficient to serve very appropriately as an illustration of the principles underlying this department of economic science.

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[1] When at the close of the war of 1870 France was under the paper-money system, and all its gold went into Germany to pay the war indemnity, gold immediately rose to a premium of 2½ per cent (fifty centimes on a twenty-franc piece). That was not a great rise, but it was enough to put the government on its guard, and the danger was averted.

The first government paper to circulate as money in this country appears to have been the "bills of credit" issued by the colony of Massachusetts in 1690 to the amount of £40,000, in order to pay the colonial troops for a disastrous military expedition against Canada. As the public treasury was empty and the soldiers refused to wait, these bills were issued in anticipation of the tax collections; they were not payable at any particular time, they did not bear interest, and were not legal tender. As they did not pass for more than twelve or fourteen shillings in the pound, the soldiers lost two-fifths of their dues. In 1692 the bills were made legal tender in all payments, receivable for taxes at 5 per cent better than silver, and redeemable in silver at the end of twelve months. These provisions made them as good as silver.

The idea of issuing paper money, once introduced, spread to all the other colonies like an epidemic. In many instances the opposition of the royal governors to the introduction of "bills of credit" contributed to the irritation against the mother country which culminated in the Revolutionary War. Down to the founding of the union, the paper-money party in each of the colonies, largely made up of debtors and speculators, endeavored to secure an abundance of cheap money. The lower houses of the colonial legislatures were controlled by a body of insolvent debtors.[1] One of the commonest ways of increasing the issues of paper was the alleged replacement of old and worn bills, which often meant an issue so large as to leave a margin for general expenses, and sometimes a very large margin. Reports which were made from time to time to the home government in response to inquiries regarding the amount of bills outstanding, were ingeniously prepared so as to convey false impressions, whenever, indeed, they answered these inquiries at all. Horace White has summed up the usual course of events where these bills of credit were issued, as follows: (1) Emissions; (2) disappearance of specie; (3) counterfeiting; (4) wearing out of bills; (5) calling in and replacing worn and counterfeited issues with new ones; (6) extending the time for old ones to run, especially those which had been placed on loan; (7) depreciation; (8) repudiation of early issues in part and the emission of others, called "new tenor."

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[1] Their methods are thus characterized by Thomas Paine, writing in 1786: "There are a set of men who go about making purchases upon credit and buying estates that they have not wherewithal to pay for; and having done this their next step is to fill the newspapers with paragraphs of the scarcity of money and the necessity of a paper emission, then to have legal tender under the pretence of supporting its credit, and when out, to depreciate it as fast as they can, get a deal of it for a little price and cheat their creditors; and this is the concise history of paper-money schemes." "Writings," Vol. II, p 178.

When popular governments have once started the convenient process of issuing paper money, there seems to be no hope of arresting it. Bad as the colonial bills of credit were, those of the revolutionary period were worse. The Continental Congress had need of money but no means of raising it. Therefore it had recourse to the expedient of issuing paper money, to be redeemed by the states, — which never did redeem it. Pelatiah Webster was almost the only man of prominence to insist upon taxation as the only legitimate means of raising money for the war. But the popular sentiment was entirely opposed to this, and one delegate to the Congress voiced the general feeling when he asked with unspeakable scorn why he should vote to tax the people, when a Philadelphia printing press could turn out money by the bushel. In the summer of 1775 "due bills" for $3,000,000 were issued, which, at the suggestion of Congress, were declared by the colonies to be legal tender. From this time forward, the issues of "continental" paper currency — so called to distinguish it from the money issued by the separate colonies — followed in rapid succession, until $241,000,000 had been issued by 1779. To prevent depreciation it was deemed necessary to fix the prices of merchandise by law and to prohibit selling merchandise at higher prices for paper than for silver. Severe punishments were inflicted for this offence, but by 1777 the depreciation was too great to be ignored, and a little later the Continental paper became so valueless as to give rise to the characteristic expression "not worth a continental."[1]

In May, 1781, Congress recommended that the states should repeal their legal-tender laws. All of them subsequently adopted "scales of depreciation" for the settlement of debts. These were tables showing how much the money was worth in specie at various times, and how disputed accounts should be settled. The tables were notoriously incorrect. The one recommended by Congress placed the currency at par in September, 1777, whereas it was worth at that time only 33 cents on the dollar. August 4, 1790, Congress granted authority for funding the bills in 6 per cent bonds "at the rate of one hundred dollars in the said bills for one dollar in specie." Only $7,000,000 turned up to take advantage of this provision.

After the establishment of the union a number of states plunged afresh into a debauchery of paper money.[2] Despite the common sense displayed by a few men, such as Thomas Paine, who emphatically asserted that "money is money and paper is paper," the advocates of paper money triumphed in many of the states and succeeded in passing laws imposing severe penalties on persons that refused to accept the paper. Meanwhile the paper declined steadily in value, and landowners who had covered their farms with mortgages made haste to lift them by paying the depreciated but lawful money. As the sums were sometimes large and the money bulky, it was frequently carried in handkerchiefs, and occasionally in pillow-cases.

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[1] "Washington said it took a wagon-load of money to buy a wagon-load of provisions. At the end of the year 1778 the paper dollar was worth sixteen cents in the northern states and twelve cents in the south. Early in 1780 its value had fallen to two cents, and before the end of the year it took ten paper dollars to make one cent. In October, Indian corn sold wholesale in Boston for $150 a bushel, butter was $12 a pound, tea $90, sugar $10, beef $8, coffee $12, and a barrel of flour cost $1575. Samuel Adams paid $2000 for a hat and a suit of clothes." — FISKE, "The American Revolution," Vol. II. In Philadelphia a barber papered his shop with bills, and a dog was led up and down the streets covered with a coat of continental paper money.

[2] McMaster, in Vol. I of his "History of the People of the United States," describes the paper-money agitation in the states at this time.

For a time the financial problems facing the national government apparently did not call for renewed experiments with paper money, and at the beginning of the Civil War, in 1861, the currency of the United States consisted of gold coins, subsidiary silver, minor coin, and state bank-notes. In 1862, after unwise action by the Treasury Department had forced the banks of the country to suspend specie payments, *i.e.* to refuse to meet their obligations in coin, Congress passed a law authorizing the issue of $150,000,000 of United States notes, not bearing interest, payable to bearer, of denominations not less than $5 each. They were to be legal tender in payment of all debts, public and private, except duties on imports and interest on the government debt. A few months later another act authorized the issue of $150,000,000 more of these notes, so crying were the needs of the Treasury for funds to carry on the war. The total amount finally reached $450,000,000.

But these notes or "greenbacks," as they were called, immediately depreciated. In 1864 each note was worth only 49 per cent of its face value, and ultimately fell to 35 cents per dollar. As the government was obliged to pay higher prices for everything, the cost of the Civil War was nearly $1,000,000,000 more than it would have been otherwise. The notes were originally made convertible, at the option of the holder, into bonds bearing interest in coin at 6 per cent. But this connecting link between the notes and gold was unwisely repealed in 1863. If it had remained in force, the notes would have been exchanged for bonds whenever the price of the latter was above par, and specie payments would probably have been resumed soon after the close of the war. As a matter of fact these notes were not really redeemable in coin until 1879.

Two other kinds of legal-tender notes were issued during the war. They were called "Treasury notes" in contradistinction to the United States notes or "greenbacks." On March 3, 1863, Congress authorized the issue of $400,000,000 of Treasury notes of denominations not less than $10, to run not more than three years, to bear interest not exceeding 6 per cent payable in "lawful money," *i.e.* in either gold or United States notes. They were to be legal tender for their face value, excluding interest. The object of this law was to obtain loans from small investors without increasing the currency. Anybody having $10 for which he had no immediate use could buy a Treasury note for that sum. He would be impelled to hoard it for the sake of the interest, but if necessary he could use it as money for its face value, in which case the recipient would be impelled to hoard it. Under this act $44,520,000 of one-year notes, and $166,480,000 of two-year notes, bearing interest at 5 per cent, were issued. A portion of these notes had interest coupons attached to them, which could be cut off and collected as the interest matured. These were found to be troublesome, since they caused alternate contraction and expansion of the currency. When the accumulated interest was sufficient to make it worth while for the owner to keep them they would be hoarded, and when the coupon was cut off they would be put in circulation. They were paid off by the government and cancelled as soon as possible.

Under this act also there were issued $266,595,440 of compound-interest notes to run three years. The rate of interest was six per cent, compounded semi-annually, and the interest was payable with the principal at maturity and not otherwise. On the back of the note was printed a statement showing its value at the end of each six months. This was the most scientific form of legal-tender notes issued during the war, since it offered a continuing inducement to the owner to hold them as an investment instead of putting them in circulation.

In the summer of 1862, when the silver subsidiary coins grew scarce because of the depreciated greenbacks, people began to use postage stamps as a substitute. The demand for stamps became greater than the Post Office Department could supply; the stamps, moreover, were inconvenient to use. Accordingly, Congress issued small notes to take the place of the stamps, consisting of strips of paper bearing the facsimile of postage stamps. This was called "postage currency." By a later act, fractional currency was issued in the form of promissory notes of the United States for sums less than one dollar. These notes were small and easily worn out and lost; the largest amount in circulation at any time was $27,000,000.

Of particular interest to the economist, however, is the endeavor, made in 1864, to keep down the price of gold (for which the greenbacks had steadily been increasing the premium) by legislative enactment. Secretary Chase induced Congress to pass a bill "to prohibit certain sales of gold and foreign exchange." The law, based on the belief that brokers had caused the price of gold to advance, imposed heavy fines and penalties upon all those who should violate it. But the measure remained on the statute book only two weeks. On the day it passed, gold was quoted at 198. The next day it was 208, the next 230, and in a few more days, 250. Whereupon Congress repealed the act without debate.

Another matter of essential interest and importance is the effect of this depreciated legal-tender paper on wages. Professor Taussig maintains that "money wages responded with unmistakable slowness to the inflating influences of the Civil War. In 1865, when prices stood at 217 as compared with 100 in 1860, wages had only touched 143. The course of events at this time shows the truth of the common statement that in times of inflation, wages rise less quickly than prices, and that the period of transition is one of hardship to the wage-receiving class."[1]

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[1] Paper read before the International Statistical Institute at Chicago, 1893.

Congress voted in December, 1865, in favor of the early resumption of specie payments. In pursuance of this design, in April, 1866, it passed a law for retiring and cancelling the legal-tender notes at the rate of $4,000,000 a month. But in February, 1868, this act was repealed, after $44,000,000 had been retired. In 1873 the Treasury Department reissued $26,000,000 of the retired notes. Later Congress voted to resume specie payments on January 1, 1879. Since then the notes have always been redeemed in gold coin whenever presented to the subtreasury in New York. Subsequently it was provided that the notes should not be retired when redeemed, but should be paid out and kept in circulation. At that time the amount outstanding was $346,681,016, and it has remained at that figure ever since. A permanent gold fund for the redemption of these notes was indirectly established by the act of 1882, which provided that "the Secretary of the Treasury shall suspend the issue of gold certificates whenever the amount of gold coin and bullion in the Treasury reserved for the redemption of the United States notes falls below $100,000,000."[1]

V. How even Paper Money may be Dispensed With

Although paper money economizes metallic money, this advantage, as we have seen, is obtained only at the price of serious disadvantages and even of great dangers. If, therefore, it were possible to find some way to economize metallic money without resorting to so dangerous an expedient as paper money, this would undoubtedly be a great benefit. Now there is such a way as this, and it is more effective as well as less dangerous than paper money. It consists not in replacing a costly instrument of exchange by another that costs nothing at all, but simply in *doing away with every instrument of exchange.* We may explain the operation of such a scheme in the following way.

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[1] For the information contained in this brief sketch of our paper money I am indebted principally to Horace White's "Money and Banking," second edition, 1902. Other literature of which use was made, and to which the student may be referred, is as follows: McMaster, "History of the People of the United States"; Fiske, "The American Revolution"; A. S. Bolles, "Financial History of the United States"; Phillipps, "Historical Sketch of American Paper Currency"; Felt, "Historical Account of Massachusetts Currency"; A. M. Davis, "Currency and Banking in the Province of Massachusetts Bay"; J. H. Cuntz, "Our Money as It Is" (Vol. VII, No. 6, of "Sound Currency"). — C. W. A. V.

In the first place: We replace *cash sales*, *i.e.* the exchange of commodities for money, by *sales on credit*, *i.e.* the exchange of commodities for a promise to pay at some future date. Credit sales are in reality nothing more than this: I give you my commodity, and receive in exchange for it your promise to pay, represented by a note or by a bill of exchange.[1]

In the second place: Once these promises to pay have been made, we seek to have them fulfilled in some other way than by actual payment in metallic money. Jurisprudence suggests various methods of accomplishing this; for example, what the jurists call *compensatio* (by means of which two exactly opposite and equivalent claims or obligations counterbalance each other), or *confusio* (when one party is at the same time both creditor and debtor), or *novatio* (when one promise to pay is extinguished by making a new promise).

The extreme complexity of social relations and the fact that each of us — or at any rate each producer — is in turn both buyer and seller make it a very easy matter to apply such devices as these to facilitate payments.

It was first of all in international commerce, in exchange between countries, that men learned to employ credit and to dispense with the direct use of money. The difficulty and danger of transporting large quantities of money over great distances led the Lombards, it is believed, to invent the *bill of exchange.* The foreign bill of exchange, indeed, is the first form of negotiable paper known to English law. When originally used in the thirteenth century, it was only in dealings between merchants of different countries; but in the seventeenth century inland bills of exchange came into use between merchants in different parts of England.

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[1] For the understanding of this section the reader should refer to the chapter on Credit.

A bill of exchange or draft (of which frequent mention will be made hereafter) is a written order by which the person drawing the bill orders some other person, upon whom he has a claim, to pay a specified sum of money to a third person. These bills are payable either at sight or at some specified time. It is not necessary that the person to whom they are given shall present them himself for payment. They may by indorsement be transferred from one person to another. In this manner one bill may serve to make many payments before the drawee is called upon to make final payment. The utility of these bills is most manifest in foreign exchanges, and may perhaps best be made clear by an example.

Suppose that American wheat dealers have sold to England $2,000,000 worth of wheat at six months' credit; that is to say, instead of receiving money from England they have drawn bills of exchange to the value of $2,000.000 upon their English debtors. Now suppose, furthermore, that English manufacturers of cutlery have sold $2,000,000 worth of knives and forks to American dealers on similar terms and have drawn an equal amount in bills of exchange payable in the United States. When the American purchasers of cutlery wish to pay for the goods bought from England, will they send $2,000,000 in coin across the sea? Certainly not. They will simply purchase from the American wheat dealers the $2,000,000 worth of bills of exchange payable in England; they will then send these bills to their English creditors in place of money, saying, "Collect these sums from your fellow-countrymen." It will not be difficult for them to procure these bills of exchange, for, as we shall see, there are persons called bankers who make it a business to buy and sell them, *i.e.* persons who buy paper payable abroad, in order to sell it to those that require it. The use of such bills avoids the manifest absurdity of sending two shipments of coin across the ocean, one to England and the other to America.[1]

It is true that our example supposes that the two countries are indebted to each other for exactly the same amount, — a supposition that is very unlikely to hold true. But although it is not directly true, the same result may nevertheless be reached in a roundabout way. Let us grant, for instance, that the United States has purchased $2,000,000 worth of tea from China, but sold nothing in return. The above kind of compensation then seems impossible. Shall we not in this case be obliged to send $2,000,000 in coin to China? Perhaps not. Although *we* may have sold nothing to China, there are probably other countries that have sold goods there, and that are consequently creditors of the Chinese. All we need to do is to *buy their claims* on China. When we shall thus have become creditors of the Chinese, nothing will be easier than to balance our accounts with them. It is possible, for instance, that England has sold China $2,000,000 worth of cotton cloth. In this event we should only have to buy England's claim upon China for this sum; or, to put it technically, we might purchase, at London, paper payable on Shanghai or Hong Kong. But it may be objected that in any case we shall be obliged to pay $2,000,000, and that it matters little whether we pay it to England or to China. This, however, is an error. It matters very much whether we owe to China or to England, for in the latter case it is only requisite that we shall ourselves have a claim of $2,000,000 against England (perhaps for wheat we have sold her) in order to balance accounts for all three nations, perhaps without the payment of a single dollar in money.

Without such ingenious devices as this, international trade would be impossible. If the United States, for instance, were obliged each year to pay in cash for the $900,000,000 worth of goods which we import, whence could we obtain this enormous amount of money? There is not enough metallic money in the whole country to enable us to pay in cash for our imports during twenty months. In reality, the amount of money that is sent from one country to another is never more than a small fraction, — 10 per cent at the most — of the value of merchandise exchanged.

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[1] Brief but clear explanations of the legal nature and significance of bills of exchange may be found in White's "Business Law" and Burdick's "Essentials of Business Law."

In the transaction of business between individuals we are by no means so far advanced. Yet exchanges between individuals could be effected by means of the same system as that used between nations, namely, selling on short credits, creating bills of exchange, and passing them from person to person until they are counterbalanced by each other. Suppose, for instance, that I am a lawyer, and that one of my clients, who is a wine-merchant, owes me money. Instead of paying me, he gives me his note. When I want to pay my book-dealer, I can give him this note in payment. If it should happen that my book-dealer gets his wine from the same wine-merchant, it is a very simple matter for him to use this note in payment.[1]

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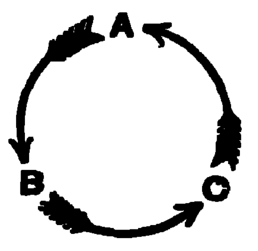
[1] Here is a fuller illustration: In the same town let there be three persons, whom we will call A, B, and C. Let us suppose that A is a creditor of B's, B a creditor to the same amount of C's, and C in his turn a creditor of A's. This is shown by the accompanying diagram.



Is it not clear that, instead of having the sum of money owed by the three debtors respectively to their three creditors pass through a complete circuit, it would be far simpler to settle the whole transaction without paying a cent in cash? We may be told that it is highly improbable that C should be a creditor of A's, and should, as it were, be purposely placed where he is, in order to close the circle. No doubt it is improbable. But if C is not a creditor of A's, he will stand in that relation to D, E, F, G, or H, etc., until we finally come to a man who in his turn is a creditor of A's, and then the problem is solved. The more persons there are in the operation, the *better chance there will be of closing the circle.*

But we can conceive another method, infinitely more simple in theory and easier to understand. Suppose that all our citizens have opened an account at the same bank, and that it is the business of the bank to register everybody's sales by giving him *credit* for the respective amounts, and everybody's purchases by marking them to his *debit*. Accounts then might be balanced by means of *book credits and book debits*. Such a system as this would dispense entirely with money. Every time I made a purchase, instead of paying the storekeeper I should authorize the bank to place the necessary sum to my debit and to the storekeeper's credit. The latter, in turn, would do likewise whenever he had occasion to make any purchases.

If, instead of buying goods, I want to make an investment, the process would be just the same: the bank would enter to my debit the sum representing the value of the stock, and an equal value to the credit of the company which issued it, or the former holder who transferred it to me. At the end of the year the bank would send a statement to each person, indicating his account for the year, and disclosing a balance in favor either of the banker or the client. If the latter is the case, the surplus is credited to the client; if the former, it is debited. It is evident that, theoretically, under such a system as this all business transactions could be settled by means of book credits.[1]

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[1] The term *book credit* is usually applied not to the accounts kept by banking establishments, but to accounts kept by dealers themselves. Our use of the term is an extension of its application. "If two firms have frequent transactions with each other, alternately buying and selling, it would be an absurd waste of money to settle each debt immediately it arose, when, in a few days, a corresponding debt might arise in the opposite direction. Accordingly, it is the common practice for firms having reciprocal transactions to debit and credit each other in their books, with the debt arising out of each transaction, and only to make a cash payment when the balance happens to become inconveniently great." (*Jevons*, "Money," page 251.) The term *book credit* is generally confined to this sort of operation.

VI. How Improvements in Exchange tend to bring us Back to Barter

The processes just described call our attention to a curious tendency in modern economic life. Clearly, the present tendency, as Stanley Jevons remarked, is to do away with the instrument of exchange and bring us back to the direct exchange of commodity for commodity, *i.e.* to barter. There is, indeed, in the ingenious and complicated processes which are the latest result of economic evolution, a curious resemblance to the primitive methods of uncivilized societies. This is not the only respect in which the historical development of nations displays the strange phenomenon that human thought, having reached the end of a certain line of progress, returns, as it were, to its starting-point, and thus describes one of those great circles which so vividly impressed the imagination of Vico. Progress moves in a circle, or it at least appears to suggest a rising spiral.[1]

Is not international trade now really carried on by barter? Each country pays for most of its imports by means of its exports; in other words, it exchanges its own products for foreign products. (See the following section, page 301, note 1.)

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[1] An analogous phenomenon attracted our attention when discussing the rôle of merchants (page 207). We observed that social evolution gave rise first to a class of merchants whose function it was to facilitate relations between consumers and producers; then we remarked that the same evolution tended to-day to eliminate this class of merchants and to bring us back, by means of simple and more effective methods, to direct contact between consumer and producer. Again, coöperative association was one of the first forms of production; yet many regard it as the industrial form of the future.

The other social sciences offer quite as striking examples of the same principle: *e.g.* direct government by the people in antique cities reappears in the guise of the *referendum* in our modern constitutions; obligatory military service for all citizens is bringing European nations back to the state of things which preceded the institution of permanent mercenary armies.

Yet the contrary thesis is upheld by Massart, de Moor, and Vandervelde in their book on "L'Evolution regressive."

The introduction of such an arrangement as that outlined above, by which all citizens have accounts at the same bank, would be tantamount to a system of barter, since under it everybody would be paying for the products or services of others with his own products or services.

It is virtually a kind of barter that makes the *check* system and the great institution of the *clearing house* possible. Their nature and working is comparatively simple.

There was a time when merchants kept their money in their own strong-boxes and paid it out as occasion happened to require. But in the course of time, goldsmiths obtained the privilege of keeping this money in their vaults, subject to the demands of the owner; and instead of paying money from their own safes whenever they made purchases, merchants would simply give their creditors an order on the goldsmith, calling upon the latter to pay the requisite amount to the bearer of the order. These orders or *checks*, the importance of which has steadily increased with the development of trade, now serve very extensively as a substitute for money. A check may be defined as an order on a bank to pay some one a specified sum of money. It can be drawn only against a deposit of money in the bank, or against a credit previously agreed to by the banker. By means of the check the depositor transfers a part of his deposit or his credit to the person to whom the check is payable.

Suppose that A purchases fifty dollars' worth of goods from B, and pays with a check for that sum; B, in turn, buys fifty dollars' worth of goods from C, and uses a check in payment; C buys fifty dollars' worth of goods from D and pays in the same manner as A and B. If all these checks are drawn on the same bank, the matter is perfectly simple. Each person in possession of a check will deposit it at the bank, and although total business to the amount of $150 has been transacted, it will only be necessary for fifty dollars ultimately to change owners. D will be fifty dollars richer than before, whereas A will be fifty dollars poorer.

B and C may be regarded as having merely exchanged goods for goods, as under a system of barter.

Now suppose that each of these persons has an account at a *different* bank. The recipient of the check in each case need not hurry off to the bank upon which it is drawn; he simply deposits it at his own bank, and is credited for the amount of the check. In the course of a day's business each bank in this manner receives a great variety of checks drawn upon all the banks of the neighborhood, and, sometimes, checks that are drawn upon distant banks. Then the representatives of the various banks meet at the *clearing house* and balance their claims against each other. It will be found, in the example mentioned above, that B's bank has a claim of fifty dollars against A's bank, that C's bank has a claim of fifty dollars against B's bank, and that D's bank has a claim of fifty dollars against C's bank; but all that is necessary is for A's bank to pay fifty dollars to D's bank. In reality the matter is likely to be even simpler than this, for each bank has a multitude of claims against the other banks, and when all these claims are compared little money need be paid to balance them. If a bank sends to the clearing house checks to the amount of $20,000 and finds there checks drawn against itself to the amount of $22,000, the bank will be indebted to the clearing house for $2000, which balance it will have to pay in money. If, on the other hand, the checks drawn upon this bank had amounted to $18,000, the bank would have received the balance of $2000 from the clearing house. In this manner different banks very conveniently settle all their mutual obligations by merely paying the balances against them, or receiving balances due them, at the clearing house. Banks situated in different places settle their accounts with almost equal ease. Banks in country districts have agents, or corresponding banks, in the nearest clearing-house city, so that every clearing house performs this work of settling accounts for banks of the adjacent territory. Then the New York clearing house acts as a central clearing house for the banks of the entire country, since every important city bank corresponds with some New York bank that is a member of the clearing house. In 1902 the total transactions of the clearing houses of the country amounted to $116,021,618,003. The New York clearing house effected $78,130,693,507.97 of these transactions, the daily average being $265,793,423.21, while the amount of money actually used to effect this volume of business was but four and one-half per cent of that sum.

Thus the clearing house really reverts to a sort of barter. These huge bundles of checks, bills of exchange and negotiable paper, which day by day are exchanged for each other, simply represent innumerable boxes, bales, barrels, and carloads of all kinds of merchandise which have been exchanged for each other. For those who look behind the mere appearance of things, the clearing house is a colossal bazaar, like those which exist among African tribes or which existed in the cities of antiquity. The only difference is that here not the goods themselves are exchanged, but the certificates that represent them.

The precious metals, to be sure, although they are losing their position as instruments of exchange, still retain their function as the measures of value, for it is plain that the value of all these papers, checks, bank-notes, etc., is ultimately based on metallic money. Only, this basis is from day to day becoming more narrow, when compared to the enormous edifice of credit that has been built upon it. The present system has been likened to a pyramid, resting upon its apex and constantly growing larger. It has also been compared to a top turning with enormous rapidity on a metallic point, so that its equilibrium is fearfully unstable; as soon as the top ceases to turn, it falls.[1]

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[1] Mr. Vanderlip, former Assistant Secretary of the United States Treasury, has recently given what he called a conservative note of warning with reference to the inflation of credit liabilities in this country. These liabilities, he

Nor can we be certain that, even as a measure of value, the precious metals will not some day lose their privileged rank. We can readily conceive a social state in which the unit of value serving as the basis for sales and purchases will be purely nominal, and will correspond to no particular piece of money in circulation. *Money of account* of this kind has frequently been employed: the *mark banco* of the mediæval bankers, the *livre tournois* under the "ancien régime" in France, and the modern English *guinea* are not represented by any coin.

Only when money has become a pure abstraction shall we fully attain the social state described in the preceding section of this book, namely, the system under which all receipts and payments are effected by a thorough system of bookkeeping embracing the exchanges of all members of the community.

declared, have in the last five years increased $4,000,000,000. There has been an increase of $1,300,000,000 in the deposits of the national banks alone during the last two years, while the basis of gold and legal tender has slightly decreased. This increase of bank liabilities and bank credits has been caused in a great measure by the conversion of the ownership of industrial establishments into shares and bonds, that is, into bank collateral.

CHAPTER IV — INTERNATIONAL TRADE

I. The Balance of Trade

THE term *balance of trade* designates the relation between imports and exports. Statistics show that the imports and exports of a country are rarely equal. The balance of trade is either in favor of exports or of imports; that is to say, a nation exports more than it imports, or imports more than it exports. The latter case is the more frequent. The United States, however, since 1893 has always imported less than it exported; we have, in other words, had what is called a "favorable balance of trade." During the last five fiscal years of our foreign commerce the value of merchandise exported and imported was, in round figures, as follows: —

YEAR	EXPORTS	IMPORTS
1898	$1,231,000,000	$616,000,000
1899	1,227,000,000	697,000,000
1900	1,394,000,000	850,000,000
1901	1,488,000,000	823,000,000
1902	1,382,000,000	903,000,000
Totals	$6,722,000,000	$3,889,000,000

These figures indicate that during a period of only five years the United States has sold to foreign countries $2,833,000,000 worth of goods more than it has bought from them; this is equivalent to an average annual excess of exports over imports amounting to more than $566,000,000. Must we therefore conclude that foreign nations are every year obliged to pay us, on an average, more than half a billion dollars in money? This is scarcely probable, for the amount of money circulating in this country has not increased perceptibly. A good test of the validity of the assumption that foreign nations pay us this enormous amount annually is furnished by the statistics of gold and silver imports and exports. (We have already learned that in international trade paper money is of no avail, and that international engagements must be met in gold and silver.) The official statistics for gold and silver exports and imports during the last five fiscal years show, in round numbers, the following totals: —

YEAR	EXPORTS	IMPORTS
1898	$71,000,000	$151,000,000
1899	84,000,000	120,000,000
1900	105,000,000	80,000,000
1901	117,000,000	102,000,000
1902	98,000,000	80,000,000
Totals	$475,000,000	$533,000,000

The excess of imports over exports during this period was $58,000,000, or an annual average of little more than $11,000,000. Thus it would appear that we are annually selling an excess of $566,000,000 worth of merchandise to foreign nations, and receiving $11,000,000 in gold and silver in payment for this excess. Such a conclusion is manifestly absurd. Evidently, drawing conclusions with regard to the prosperity of a nation after a mere glance at its "balance of trade" is not quite so simple a matter as is sometimes supposed.

Let us now consider France as an example of the opposite state of affairs. Here are the figures for her special commerce[1] during the five years from 1897 to 1901, in round millions: —

YEAR	EXPORTS	IMPORTS
1897	$720,000,000	$791,000,000
1898	702,000,000	895,000,000
1899	831,000,000	904,000,000
1900	822,000,000	940,000,000
1901	833,000,000	943,000,000
Totals	$3,908,000,000	$4,473,000,000

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[1] *General commerce* means all imports and exports without exception, while *special commerce* includes only those commodities that have been pro-

Thus in a period of only five years France purchased abroad $565,000,000 worth of goods more than she sold, which amounts to an annual excess of imports over exports of $113,000,000. Must we conclude from these figures that France is annually obliged to pay this amount of money to foreign countries? The most superficial observation demonstrates that the amount of money in circulation there has not diminished. It has even increased. The statistics regarding the exports and imports of gold and silver for the same period as that considered above are as follows: —

YEAR	EXPORTS	IMPORTS
1897	$65,000,000	$94,000,000
1898	100,000,000	78,000,000
1899	76,000,000	101,000,000
1900	67,000,000	121,000,000
1901	57,000,000	105,000,000
Totals	$365,000,000	$499,000,000

The supply of gold and silver money in France, therefore, has increased during this period by $134,000,000, *i.e.* nearly $27,000,000 annually.

If we consider the case of England, the statistics are still more surprising.[1] The annual excess of imports over exports averages $1,200,000,000. In other words, one year of foreign commerce at this rate would suffice to drain the

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duced within the country, or will be consumed there; thus special commerce does not include goods that simply pass through the country or that remain there temporarily. Special commerce is necessarily less extensive than general commerce. In France the difference between the two is more than $400,000,000. In some countries (such as Switzerland) it is proportionally even greater than this because of their geographical position. The extent of special commerce indicates the forwarding trade in which a nation engages. The Netherlands and Belgium each derive large profits from the forwarding trade.

[1] For the year 1901 the imports of the United Kingdom amounted to $2,540,265,299, whereas the exports were valued at $1,362,728,893, — a difference between the two of $1,177,536,406.

Doubtless the official figures are not exactly correct; the money that travellers carry with them, for instance, is not included. But as the errors country twice of all its metallic money; for the United Kingdom has but $600,000,000 in coin of all kinds. Yet this money is by no means drained from the country by foreign trade. On the contrary, here, as in France, the imports of precious metals surpass the exports.

What, then, is the key to the enigma? Simply this: In order to ascertain whether the foreign trade of a country is in equilibrium, we must consider not only the balance of its imports and its exports, — as the public is accustomed to doing, — but the *balance of its credits and its debits.* Now the balance of credits and debits (or the *balance of accounts*) is not the same as the balance of trade. To be sure, exportation is one way, and the chief way, of making foreign countries our debtors. Yet there are other ways of doing this. Similarly, though imports constitute our principal debt to foreign nations they are not the sole source of our indebtedness to them. What, then, are these international claims or debts, distinct and different from exports and imports, which have aptly been termed *invisible* exports and imports? They are numerous, but three of them stand out prominently in importance: —

(1) The *cost of transportation* of exported goods, *i.e.* freight and insurance. If the exporting country has charge of the transportation of its goods, it has a claim on other countries that certainly will not be counted among its exports, inasmuch as the claim arises only after commodities have left the home port and are on the way to their destination. On this account, England has large claims against other nations, estimated at more than $440,000,000 per annum; for England not only carries all her own exports, but also transports a large share of the goods of other countries;

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or omissions are probably about the same on the side of imports as on that of exports, they do not much modify the general result.

Additional proof that the amount of money in France has not decreased may be found in the amount of cash reserves held by the banks. The Bank of France, for example, which thirty years ago had about $200,000,000 in cash on hand, now has three times that amount.

and she certainly does not perform this service gratuitously.[1] The United States, on the other hand, pays foreign nations for transportation and insurance, more than $200,000,000 annually. France pays annually to foreign nations about $70,000,000 for the same service, since she transports in her own vessels only half her exports and one-third of her imports.[2]

(2) The *interest on capital invested abroad.* Rich countries, and, as a rule, old countries, invest abroad a large part of their savings, and for this reason receive each year large amounts of money or of commodities from foreign nations. These receipts usually take the form of stock coupons, shares, debentures, farm rents, and profits in industrial and commercial enterprises. The tribute that England in this manner

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[1] The increased value of merchandise due to the cost of transportation explains the following fact, which at first sight appears inexplicable: When we add the imports and exports of the whole world, and compare the total imports with the total exports, we find that imports are much greater than exports. In the year 1901, for example, the value of the world's imports was about $10,300,000,000, while the total value of exports during the same period was about $8,800,000,000. Now if, instead of comparing the *values* of imports and exports, we compare the *quantities*, it is evident that the two totals must be equal, inasmuch as there cannot be (for the world as a whole) more goods arriving than have been sent away, unless, forsooth, their quantity has increased while on the way to their destination! As a matter of fact some goods are lost under way because of shipwrecks, waste, etc., and it is therefore very probable that the amount of goods arriving is less than that which was sent. But as the above estimates consider *values* instead of *quantities*, and as values increase under way precisely because of the cost of transportation, it is not surprising that the goods imported (*i.e.* which reach their destination) possess a greater value than those exported (*i.e.* which are taken from their starting-point).

[2] The report of the United States Commissioner of Navigation gives the following information regarding the tonnage of the merchant navies of the principal maritime nations in 1902: Great Britain, 15,546,897; United States, 5,797,902; Germany, 3,188,568; Norway, 1,632,757; France, 1,519,922; Italy, 1,159,082; Russia, 800,334; Spain, 784,573.

It must be pointed out, however, that of the total tonnage for the United States, less than 8 per cent was engaged in foreign trade. Before the Civil War, in the days of wooden ships propelled by sails, American vessels carried two-thirds of our imports and exports that travelled by sea.

receives each year from foreign countries and from her own colonies is estimated at $400,000,000. India and the Australian colonies, for instance, have negotiated in England almost the sum total of their loans. How numerous, moreover, are the enterprises throughout the world that are in the hands of English financiers or promoters! Englishmen are said to have acquired land in the United States having a total area equal to that of Ireland. France, too, has numerous claims on foreign nations, chiefly in Europe; they are estimated at more than $4,000,000,000, and represent an annual revenue of $230,000,000. Probably $3,000,000,000 of foreign capital is invested in the United States, and this amount is increased in prosperous years. Thus the United States owes about $120,000,000 annually for interest on foreign capital.

In this respect, Spain, Turkey, Egypt, India, and the South American republics appear as debtors. But it should be observed that whenever these countries issue a loan, and so long as this loan is not fully subscribed, they become for the time creditors of the countries which take up the loan and which therefore send them funds.

(3) The *expenses incurred by foreigners living in the country.* As the money spent by these foreign visitors or residents generally is not the product of their labor within the country but is drawn from their estates or from capital invested at home, all countries which are resorted to by wealthy foreigners are constantly receiving large sums of money from abroad. When brought into the country in the pockets of visitors or sent them through the mails, this money does not figure in the statistics of imports. From this point of view France, Italy, and Switzerland are creditors of England, the United States, and Russia for considerable amounts. The latest French census, for example, indicates that there are in France 66,000 foreigners living mostly on independent incomes; the number of those that stay but a short time is certainly much larger than this. Now suppose that each of these foreign residents spends

$2000 a year (certainly a low estimate for people who are there for amusement); this would mean an annual tribute of $132,000,000 paid by those who are staying for longer periods. This sum comes from the respective home countries of these foreigners and pays, so to speak, the bill for their boarding expenses in France.

It is estimated that Americans spend about $50,000,000 in foreign travel each year, and that tourists spend $40,000,000 annually in Switzerland.

These are the principal items to be considered in this connection.[1] They are more than sufficient to restore the equilibrium of international trade and solve the enigma referred to above. If, for example, in the case of France, we find her debit account to consist of $900,000,000 for goods imported, $72,000,000 for the transportation of goods carried under foreign flags, and $100,000,000 (let us say) for French citizens travelling abroad, or for French property held by foreigners, the sum total of debits would be about $1,070,000,000. If, on the other hand, we credit her with exports to the value of $800,000,000, plus $220,000,000 as interest on French capital invested abroad, and $132,000,000 spent by foreigners living in France, the sum total of credits is about $1,150,000,000. Thus France has a good balance in her favor. A similar calculation would show a similar state of affairs in England, and, in fact, for most of the older European creditor nations which appear to have an "unfavorable balance of trade."

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[1] There are other kinds of credits and debits besides those indicated; for example:—

(*a*) *Bankers' commissions*, whenever bankers extend their business to foreign countries. Stock-exchange cities like London, Paris, and Berlin receive orders and transact business for all countries. As this is not done gratuitously, these countries become to some extent creditors of other countries.

(*b*) The *sale of ships*. Purchased ships do not figure on the custom-house books either as imports or exports. England builds ships for many other countries and on this score too is a creditor for large amounts. In some years more than 1,000,000 tons of ships, mostly steam vessels, are launched from the great shipyards at Belfast and on the rivers Clyde, Wear, Tees, and Tyne.

We must be careful, however, not to reckon the *profits* of exporters under this head, though many treatises on political economy do this. These profits are already included in the value of exports, and to count them again would be a mistake. The value of exports is determined by the customs officials according to the current prices of commodities, and this price of course covers the profits of manufacturers and dealers.

We must therefore conclude that the foreign trade of a country is in equilibrium not when exports and imports are equal in value (which never happens), but when its credits and its debits are equal.

II. How the Balance of Accounts is Maintained

We must abandon the old and absurd idea, often expressed by well-known newspapers, that a country which imports more than it exports is rapidly approaching ruin. The problem, however, is merely somewhat altered by substituting the more important "balance of accounts" for the "balance of trade." With this change the problem reads: Is there risk of ruin when a country is obliged,—all things considered,—to pay foreign nations more than it receives from them?

We must certainly reply affirmatively to this question. If a nation buys more abroad than it sells, and has no other claims on foreign nations to restore the balance of accounts; or if its rich citizens spend their incomes abroad (a practice called *absenteeism*), such a nation will be compelled to export its metallic money. To remedy the growing scarcity of metallic money it will probably resort to the issue of paper money. But as this paper money, although it will take the place of coin in interior commerce, cannot be employed to pay foreign nations, the country will be obliged to borrow abroad the sums that it must pay. Such a course as this must inevitably lead nations, as it does lead individuals, to bankruptcy. Indeed, it would not be difficult to find in South America, and even in

Europe, many examples of this. Yet we must recognize certain counteracting forces which operate very effectively and which tend to obviate this evil.

Persons who have payments to make abroad endeavor to settle them by some other means than the exportation of money, because sending money is inconvenient, and because the money sent is not generally legal tender in the country where the debt must be paid. Therefore debtors try to buy bills of exchange payable in these foreign countries, in order to obviate the danger, inconvenience, and expense of transporting gold and silver. Bills of exchange, as we have seen, form the ordinary means of paying international debts. But if a country owes more abroad than foreign nations owe her, it is clear that foreign bills of exchange, *i.e.* claims on foreign debtors, will be relatively scarce. These bills will therefore be in great demand, and by virtue of the law of demand and supply they will sell at a higher price than their normal value. In other words, they will be *at a premium.* Now it is plain that this premium, bringing profit to all those dealers who have claims on foreign nations and who therefore have bills of exchange to sell (and this class consists evidently of all exporters), will stimulate the exportation of goods to foreign countries; inversely, the necessity to pay this premium, and the consequently disadvantageous situation of all those who must make payments abroad (that is to say, all importers), will discourage imports.[1] The result will be an increase of exports and a decrease of imports,—precisely the remedy best suited to the situation.

Nor is this all. Let us admit that the inequality of debits and credits involves a continual drain of money from a country. The flight and consequent scarcity of money causes a fall in prices; and although a fall in prices has some disadvantages, yet in this particular case it has the advantage of stimulating purchases by foreigners, since trade always seeks the markets in which one can buy cheapest. At the same time the amount of purchases made abroad by the debtor nation will of course decrease, because commodities can now be bought quite as cheaply at home. It is a well-known fact that goods are not taken away from dear markets to cheap markets, any more than water runs up hill. In short, the situation just described tends to encourage exportation and discourage importation — securing the same beneficent result as that discussed in the preceding paragraph.

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[1] For the understanding of this and the succeeding pages it would be well to read the section on the Rate of Exchange.

If paper money has been issued to take the place of metallic money, the result is the same. Metallic money will then be at a premium; the greater the amount of paper money, the higher the premium. The producers of a country find it profitable to sell abroad, because then they are paid in metallic money, which brings a premium, and thus involves additional profit. Hence this condition of affairs encourages increased exportation. Importation, on the other hand, is slackened, because foreign producers do not like to sell in a country having a depreciated paper money; or if they do sell, they raise their prices, and this, again, restricts sales.

To sum up, then: There is a sort of automatism in the balance of accounts that tends to restore the equilibrium whenever it is disturbed — in much the same manner that regulators on steam engines tend always to maintain a uniform speed. The current of trade cannot forever continue in one direction any more than the tide of the sea; sooner or later it must change, and after metallic money has been taken out of a country there are natural forces which tend to bring it back again.

Statistics, as well as simple observation, show that money plays only a small part — usually less than 10 per cent of the total amount — in international trade. (See page 284.) We must therefore admit that the balance of accounts regulates itself, and that credits and debits tend of their own accord to reach an equilibrium. This, in fact, is what the school of Bastiat would call an "economic harmony."[1]

Experience, moreover, demonstrates that whenever the ratification of a commercial treaty or any other circumstance gives rise to a great increase of imports, this is invariably accompanied by a corresponding increase of exports. Whenever, on the other hand, a protective tariff causes a decrease in the volume of a nation's imports, it is a natural consequence that its exports will likewise diminish.

III. The Advantages of International Trade

We have seen that exchange among individuals is an indispensable complement of the division of labor, and that both together result in a prodigious increase of productivity. On a larger scale, the same thing is true of nations as well as individuals. Therefore, *prima facie*, international exchange offers economic benefits similar to those resulting from personal and domestic exchange. In private and domestic trade, men exchange goods and services because of a relative superiority at different points. In international trade, this relative superiority may be due either to better natural facilities and resources or to the peculiar aptitudes of the population of a nation. But by means of foreign trade the advantages of this superiority are enjoyed to some extent by all nations that exchange with one another.

It is strange that the advantages of international trade have been considered from two precisely opposite points of view. The classical economists consider only *imports*. They regard importation as the object and the *raison d'être* of international trade. Exportation is but a means — the only means — by which a nation can procure the goods it imports. Exports, in other words, are the price paid for imports. The value of imports above and beyond that of exports exactly measures the advantage resulting from international trade. To acquire, for instance, an amount of imported merchandise worth $800,000,000 by exporting goods worth only $600,000,000, is an operation that brings $200,000,000 profit to a country. The less we give in exchange for what we want, — so reason the classical economists, — the more profitable is the transaction.

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[1] The same idea as that explained above may be expressed more strikingly by saying that international trade, except for the superiority of methods employed, always tends to take the form of barter. Indeed, we have shown that every debt to a foreign country gives rise to the exportation of goods to that country, and, *vice versa*, every claim against a foreign country leads to the importation of goods from that country. Of course, *merchandise* is not always exchanged for *merchandise*, inasmuch as services are often given in exchange for merchandise. Switzerland, in exchange for the money of tourists, gives the privilege of seeing her mountains and water-falls.

According to the protectionists, and according to current public opinion, the advantages of international trade must be considered from the view-point of *exports*. Exports, it is held, constitute the real profit of international trade. Imports are thus regarded only as a necessary evil to which a nation must submit whenever it cannot produce all that it needs; but a nation should strive to reduce its imports to the lowest possible amount. Exportation means increased wealth, — the receipt of money in payment for goods sold abroad. Importation, on the other hand, means expense, — the payment of money to foreign nations. Hence the advantage of international commerce is measured by the surplus of exports over imports, — of receipts over expenditures. As the United States in 1902 exported $480,000,000 worth more of goods than was imported, this sum indicates the nation's gain in international trade for that year.

Both of these opposite points of view are false. Both are based on the mistaken assumption that a nation may be regarded in the same light as an individual. A great country cannot be likened (as the classical economists are fond of doing) to a person carrying on trade solely as a means of procuring what he needs. A nation does not export goods merely in order to be able to import them, but because exportation furnishes advantages that are peculiar to itself; exportation is an end, an object of itself, not simply the means to an end. It is true that by virtue of the principle stated in the previous section, exportation indirectly gives rise to a corresponding importation, but this result is due to economic forces quite independent of the will of exporters and importers.

Inversely, the second point of view, which likens a great nation to a store-keeper who buys only in order to sell again, and whose profit consists in the excess of the selling-price over the purchase-price, is no less erroneous. What a singular idea it is to measure the benefits of exchange and commerce among nations just as one would measure the profits of merchants! This conception overlooks the fact that the profits which merchants draw from their transactions are a burden for both producers and consumers. Merchants certainly are entitled to receive some tribute for the social service which they render, but this tribute must, nevertheless, be *deducted* from the advantages of exchange. If merchants or traders made no profits at all, exchange would be none the less beneficial; nay, it would be even more beneficial. As Cairnes admirably has said, to measure the advantages of trade by the profits of traders would be just as reasonable as to measure the advantages of education by the salaries paid to teachers.

In fact, the advantages of international trade are not susceptible of arithmetical calculation; they cannot be measured in money. They are too complex for such simple methods, and are found on both sides, — that of imports as well as that of exports.

The following are the advantages of importation: —

(1) *Additional well-being*, whenever we have to do with imported goods which a country, because of its soil or its climate, could not have produced within its own borders. There are innumerable examples of this. Without inter-

national commerce, Holland would have no building stone, Switzerland would have no coal, most European countries would have no tropical fruit, England would have little lumber and no wine, Norway would have no salt, France would have no copper, and the United States would have no tea or coffee, — the list would be long if we attempted to make it at all complete.[1]

(2) *Economy of labor.* This is true whenever wealth is imported that could be produced at home only at a higher cost than abroad. France, for example, could make her own machinery, and do it very well; yet it is generally more profitable for her to import it from England or the United States, because these countries are not only better provided by nature with iron and coal, but also possess better facilities for manufacturing goods of this sort.[2]

This advantage of international trade ordinarily presupposes the productive inferiority of the importing nation, as regards the product imported. Yet this is not an indispensable condition or one without which such importation would be disadvantageous. It may be to a nation's gain to obtain certain goods by importation even though it be capable of producing them within its own borders under *more favorable conditions than the country which sends them.* Suppose, for instance, that Cuba could produce wheat under more favorable conditions, *i.e.* with less labor, than the United States: If, for example, a bushel of wheat costs one day's labor in Cuba and two days' labor in this country, would it be better for Cuba to produce her own wheat rather than to import it from this country? Not necessarily. Perhaps Cuba can procure sugar even more advantageously than wheat, requiring only half a day's labor to produce an amount of sugar that can be exchanged for a bushel of wheat from the United States. In this event it will be more profitable for Cuba to raise sugar and to import wheat, inasmuch as she can thus purchase with half a day's labor what otherwise would have cost her a whole day's labor.

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[1] Many European countries have too small a territory to provide food for their population. In order to feed her rapidly increasing population England is now obliged to import more than $1,000,000,000 worth of food stuffs, *i.e. more than half* of what she consumes in cereals, meats, drinks, etc. This is, moreover, a fact that is increasing in importance in all populous countries devoted largely to manufacturing. With the growth of population, European countries will be obliged to send abroad for an increasingly large part of their food-supply.

[2] This advantage is the only one recognized by the classical school as resulting from international trade. Bastiat formulated it in this manner: "obtaining an equal satisfaction with less effort." John Stuart Mill, in a formula slightly different but in substance the same, put it in this way: "obtaining a more useful employment of the world's productive forces." Such is indeed the advantage of exchange *between individuals*, as we have already explained (page 199); it is like an extension of the division of labor. But this point of view is insufficient, and even incorrect, for *international*

It may thus happen that a country in all points superior to its neighbors will nevertheless find it profitable to import goods from them. For even in this case a country will gain by devoting itself to the production of those goods in which its superiority is greatest, and selling them for goods in the production of which its superiority, although real, is not so great.[1] In this case exportation would be only a means to an end.

exchange. Each nation, as we shall see, far from tending to a more detailed division of the world's labor, seeks, and should seek, to develop its economic autonomy.

Again, the cost of production cannot serve as a standard in international exchange, any more than it can so serve, ordinarily, in exchange between individuals. Although competition is supposed to keep value at the level of the cost of production, it does so only on the assumption that labor and capital can immediately be transferred to wherever they are most in demand. Now this supposition, which is very imperfectly realized within the borders of a single nation, becomes absurd when applied to international commerce. It therefore still remains to be discovered how values are determined in international trade. This difficult problem is discussed at some length by Ricardo, John Stuart Mill, Cairnes ("Some leading Principles of Political Economy") and Cournot ("Principes mathématiques de la théorie des richesses," Chapter 12).

[1] The same thing is true of individuals. A physician may also be a very expert gardener; yet it may be best for him to entrust his garden to a gardener less expert than himself in order to devote all his time to his patients.

Another advantage of international commerce closely allied with those indicated above, consists in the circumstance that whenever an accident of any sort unexpectedly reduces the productivity of one country, it may depend on others to remedy this accident, which, in the absence of international commerce, might have the most disastrous consequences. Thus international commerce provides a kind of assurance against famines, against the effects of the failure of crops, and against a multitude of economic misfortunes the effects of which are either attenuated or entirely prevented by trade between nations. This advantage of international trade cannot be measured in dollars and cents, and is sometimes entirely overlooked.

Under the head of economy in labor, it should be noted that although a nation could perhaps produce a sufficient quantity of many commodities which it at present imports, the quantity produced at home could be increased only at a very great cost of labor and capital and a consequent increase in prices. The United States, for example, imports a large quantity of lead. It is probable that if it were necessary we could produce almost enough lead for the home market. If imports were cut off and we were required to do this, it would mean the exploitation of mines which now do not give sufficient returns to pay for the labor and capital necessary to work them. Cut off our foreign trade in lead, and it would be necessary to work these poorer mines, despite the greater cost; and as this increased cost of mining must be borne by the consumers of lead, the price would immediately rise to a level sufficient to make lead-mining remunerative in the case of the poorest mine that is worked, but whose output is necessary to satisfy the demand. The cessation of foreign trade would in this manner involve a great increase in the price of many commodities which are now in part imported from other nations.

As for exportation, the following are its advantages:—

(1) It utilizes natural resources and productive forces which, if there were no outlet for them in foreign countries,

would be superabundant and therefore partially useless. Were it not for exportation, Peru would not know what to do with her guano and her nitrates, nor Australia with her wool, nor Spain with her wines, nor California with her gold, nor Pennsylvania with her iron and steel, nor Minnesota with her flour, nor the southern states with their cotton.

(2) It develops a nation's industry. We have already explained (page 176) that the extent of the division of labor and the progress of large-scale production are proportionate to the size of the market. The division of labor cannot be at all detailed when the market is small, whereas with every extension of the market a more elaborate division of labor and the introduction of more expensive but in the long run more productive processes and machinery becomes possible. International trade, by creating world-wide markets for goods, tends to develop the division of labor; it leads to a fuller utilization of the possibilities of the soil and the population, to the completer development of acquired aptitudes, and hence to a great increase of the productive energy of humanity. England could never have become the great manufacturing nation that she now is, did she not export goods to all parts of the world. The possession of an extensive market made it possible for her to make immediate and profitable use of the latest inventions and improvements in manufacturing.[1]

IV. Why International Trade necessarily is Detrimental to Some Persons

It must not be inferred from the above discussion that international trade is always beneficial to everybody. That would be to misunderstand its effects. In fact, it follows from our explanation that one effect of international trade is to economize a certain amount of labor. Now as our modern societies are based on the division of labor, it is evident that labor cannot be economized without throwing a certain class of laborers out of employment.

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[1] Professor Leroy-Beaulieu maintains that international trade, especially international free trade, intensifies competition, makes coalitions and trusts among producers difficult, propagates the best industrial and agricultural methods, and stimulates all branches of human activity. ("Économie politique," Vol. IV, pages 80, etc.)

If the United States should increase its imports of cotton manufactures from Great Britain by $20,000,000 annually, this would be advantageous to American consumers and to the country in general if it made cotton goods obtainable at a smaller cost and for less labor than would otherwise be the case. But an increase in the importation of these goods means loss of employment for American workmen engaged in this branch of production. It is true enough (as we explained in a previous section of this book) that an increase of imports gives rise to a counter-current of exports, and that these English cotton manufactures would doubtless be paid for with American cereals or American cattle, which would have to be raised for that purpose. But we must not forget that cotton goods imported from England represent a lower value than the American cottons which they supplant in the market; else they would not successfully compete with American goods. Perhaps our home manufacturers could not produce these $20,000,000 worth of cotton goods for less than $30,000,000. To balance this amount of English imports, however, there will be a counter-current of American exports amounting to only $20,000,000. In other words, the final result would be a diminution of home production to the extent of $10,000,000 and a corresponding reduction in the amount of American labor required.

If there were no other effect but this displacement of labor, which is perfectly obvious, this in itself would be a grave injury to some classes of our population. The owners of our cotton mills, moreover, unable to change their buildings into wheat farms or pasture lands, evidently would lose the capital that is invested in these factories. As the laborers in their employ are not in a position to take up farming or cattle-raising for English consumers, it is by no means certain that they will find other employment. Thus the consequence is likely to be ruin for the employers and idleness and poverty for the employees.

There are, however, a few attenuating circumstances not to be overlooked. It may be said that international trade, like machinery, may ultimately cause an increase in the amount of work, which it began by diminishing. It may do this in two ways:—

(1) The fall in prices resulting from free trade will cause an *increase in consumption* and, consequently, an increase in production. A decline in the price of cotton goods will lead to increased purchases either of cotton goods or of other commodities. What the people save in the decreased price of cotton goods they will perhaps use to purchase goods of home production. And even if the savings are used to buy foreign goods, and not American products, it will nevertheless be necessary to pay for this larger bulk of imports by exporting larger quantities of American goods. In the case discussed above, the exports of American wheat and cattle may be increased not merely by $20,000,000, but by $30,000,000.

(2) The fall in prices diminishes the expenditures of those that consume the commodity in question. The consumers are therefore enabled to devote the amounts saved to productive enterprises, old or new. Increased productive capital means the employment of additional labor. In this case, too, the work that has been taken from the laborers is restored to them by the growth of other branches of production; and thus it is probable that the national labor will not be reduced at all.

Not only importation, but also exportation, may have undesirable effects. Countries, for example, which regularly export cereals (like the United States and Russia) may ultimately impoverish their soil and rob it of all the fertile properties that it possesses. These properties are removed in part with each crop that is taken from the land.[1] It may almost be said that such countries are gradually exporting their soil itself. Peru, which has already exported all of her guano, is now rapidly exhausting her supply of nitrates, consuming in the most improvident fashion the stores of wealth that nature has given her.

V. The History of Protectionism

During antiquity and the Middle Ages international trade was not so widespread as it is to-day. It was in the control of a few small countries, — Tyre and Carthage in antiquity, the Italian and Hanseatic cities in the Middle Ages, and Holland at the beginning of the modern epoch. These, by reason of their maritime situation, acquired a monopoly of commerce and transportation. The other peoples merely played a passive part; they received foreign traders in very much the same way that tribes of African negroes now receive European or Arabian merchants, *i.e.* with some degree of friendliness because they are thus enabled to procure commodities which would otherwise be unobtainable. Sometimes non-commercial peoples even sought to attract foreign merchants by granting them certain privileges. They always, however, required foreign merchants to pay special taxes or fees in exchange for the protection or privileges afforded; these taxes were a kind of obligatory profit-sharing. Precisely the same thing is done nowadays by African chieftains who tax the caravans which pass through their dominions. Thus customs duties — if we may apply this name to these early forms of compulsory tribute — were originally mere fiscal taxes and in no wise protective. What, indeed, could they have protected?

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[1] Henry C. Carey has emphasized these considerations and made them part of his argument for protection. All the articles derived from the land are really separated parts of it, which must be restored on pain of its exhaustion. Hence, declares Carey, the producer and the consumer must be close to each other; the products must not be exported to a foreign country in exchange for its manufactures, and thus go to enrich, as manure, a foreign soil. In immediate exchange value the landowner may gain by such exportation, but the productive powers of the land will suffer.

With the development of great nations during the sixteenth and seventeenth centuries, however, the problem of customs duties acquired a different character for the following three reasons: —

(1) Because the great nations of Europe endeavored to form national markets, closed to the outside world, producing whatever they required and sufficing unto themselves.

(2) Because the great importance attributed to the precious metals, gold and silver, after the discovery of America, led to the idea that a nation should buy as little as possible abroad in order not to be obliged to export metallic money.

(3) Because the opening of the world's great maritime routes led to an unprecedented development of international commerce. Competition between nations, which could not exist when commerce was limited chiefly to the transportation of articles of luxury (such as Tyrian purple, Venetian brocades, Toledo blades, etc.) became a factor of importance when commerce was sufficiently developed to transport articles of more general use (such as Flemish cloths).

We have already referred, in our sketch of the history of economic doctrines, to *mercantilism* (page 7), which arose during the sixteenth century. The mercantilists exaggerated the importance of money and of foreign trade as a means of procuring money. This undue emphasis, however, was not so absurd as some authors have maintained, for at a time when commerce had barely begun, when the great nations of Europe were being formed into powerful states, when taxation in money had just taken the place of taxation in products or in labor, a great increase in the amount of money in a country was indispensable. Soon afterward, another matter began to receive the attention of statesmen, namely, the desire to place the nation in a position of economic self-sufficiency. This ambition may properly be regarded as the original germ of the protectionist idea. It must be observed, moreover, that in pursuing this aim men were simply carrying out the natural order of economic evolution, which has constantly been widening the economic group: first it was the family that formed an autonomous economic unit, then the village or town community, then the national market. To-morrow, perhaps, the economic unit will consist of the whole Western world. (See the section on the History of Exchange, page 184.)

It was therefore natural that statesmen should conceive the idea of employing customs duties as a means of excluding foreign competition and developing the economic possibilities of a nation. Customs duties lost their *fiscal* character and became *protective*.[1] In England, Cromwell, and in France, Colbert, were the first statesmen to devise a genuine *protective* system. Colbert himself formulated the principal objects of the protective system under three heads: —

(1) To prevent the importation of manufactured goods by means of protective duties.

(2) On the other hand, to favor the importation of raw

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[1] Customs duties may of course still have a fiscal character, making them what in this country is known as "tariff for revenue." Thus England, although asserting that she has absolute free trade, puts a duty on certain products (tea, coffee, sugar, tobacco, and wine), and in this way collects a revenue amounting to about $100,000,000. Yet these duties have a purely fiscal character, because England does not wish to produce, or could not produce, any of these commodities on her own soil.

Whenever a government is about to introduce customs duties, it is very important to know just what character these duties shall have. This is no mere question of names. For when duties are to be primarily *fiscal*, the government should lower them to a level that will encourage the importation of the products taxed; experience has shown that when taxes of any kind have for their object the production of a maximum of revenue (postal charges, for example), the proceeds of the tax generally are highest when the tax is most moderate. If, on the other hand, it is intended that duties shall have a protective character, the government should raise them high enough to restrict the importation of the commodities that are taxed.

materials, and all commodities used in manufacturing, by reducing duties and all other charges which might restrict such importation.

(3) Above all, to encourage the exportation of national products by reducing taxes, or, if need be, by granting subsidies and bonuses.

This system, which is sometimes designated as *Colbertism*, reigned supreme until the "economists" made their appearance. We know that the latter (see page 23) took as their motto the rule, "laisser faire, laisser passer," and that they fought quite as energetically for free trade (as opposed to protectionism) as they did for freedom of labor (as distinguished from the guild system). But the French Revolution, which led to the triumph of their doctrine with regard to the freedom of labor, did not by any means inaugurate free trade. Twenty years of European war were ill suited to the propagation of the idea that there should be free and unrestricted commerce among nations.

In England, however, the ideas of Adam Smith spread rapidly. In 1838, at Manchester, Cobden began the remarkable campaign that was destined to overthrow the system of protection. He very adroitly chose the field of combat by directing his attacks solely against the protective duty on "corn."[1] It was indeed a particularly odious spectacle to behold the rich lords of England, owners by right of conquest of nearly all the land of the kingdom, keep out foreign wheat in order to sell their own more dearly or to collect higher rents, and thus profit by the growing need of the population for food. The House of Lords found that it could with poor grace resist the popular indignation fostered by the "Anti-corn-law League" in 1846; and when Sir Robert Peel, the prime minister, was converted to the popular cause, the lords were obliged to yield. Once the duty on wheat was abolished, all the rest of the English protectionist system (including the famous Navigation Acts of Cromwell, to which the maritime greatness of England has been attributed) fell to pieces.

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[1] In England the word "corn" means either wheat, barley, rye, and oats collectively, or, more specifically, wheat.

In France, a league founded by Bastiat in 1846, and modelled on the English Anti-corn-law League, failed because the social conditions were entirely different from those which prevailed in England. But Emperor Napoleon III, whose policy was founded on an alliance with England, and whose tendencies were rather democratic, took advantage of the power conferred on him by the French Constitution, and without consulting the Chamber of Deputies, signed a commercial treaty with England. This celebrated treaty of 1860, for which the French people were very unenthusiastic, gave rise to considerable comment in Europe and was immediately followed by the signing of analogous treaties by most European powers. There seemed to be every indication that the era of free trade had fairly begun and that it would long continue.

Yet its rule was of brief duration. The United States, as we shall see presently, after the Civil War, resolutely adopted a strong protectionist policy, and has since then persevered along the same line. In 1872, after the Franco-Prussian War, France, under the government of Thiers, tried to follow the example of the United States by levying upon foreign imports the taxes designed to pay for the unsuccessful war that had just been terminated. This effort failed because of the treaties still in force. In 1879 Germany, on the initiative of Bismarck, inaugurated the return of European nations to a decidedly protectionist policy,[1] and her example led almost immediately to the adoption of a similar policy by most nations of Europe, just as the example of France in 1860 had led to the general adoption of the free trade system. There are now few nations in Europe, — except England, Holland, Norway, and Denmark, — that have remained faithful to free trade; everywhere else, even in Switzerland, tariff barriers have been raised and tariff wars have taken the place of commercial treaties.[1]

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[1] In point of date, Austria was the first, by adopting the tariff of June 27, 1878; but her example had much less influence than that of Germany.

From the very start the foreign commercial policy of the United States has been more or less protectionist. Hamilton's celebrated Report on Manufactures was a clear statement of the protectionist theory, and not the least remarkable of its author's state papers. Our constitution forbade the imposition of export duties, but lodged in the hands of Congress exclusive power to levy import duties. The first tariff measure brought before Congress was introduced by James Madison and passed on July 4, 1789. It provided for the "encouragement and protection of manufactures." The protection afforded by this measure, however, could not have been very great, inasmuch as the general level of duties was but 5 per cent *ad valorem*, and the highest rates on luxuries did not rise above 15 per cent. These rates were soon found insufficient to provide the necessary revenue, and were subsequently increased. Between 1789 and 1812, thirteen tariff laws were enacted by Congress; the general purpose of these laws was to increase the duties and the number of dutiable articles, — primarily in order to meet the expenses of the government, but also in order to protect American industries.

The reports made by the committees of Congress and the subsequent debates thereon indicate very clearly that the protection of American industries against foreign competition was a principle very widely accepted. The restriction of our foreign commerce, due to the embargo policy of 1807 and the war of 1812, was equivalent to a rude but vigorous application of protection. During this period, Northern capitalists had been obliged to find new means of employment for their idle funds, which could no longer be profitably invested in the shipping interest. They turned their attention to manufacturing enterprises, and established the textile industries of the North.[1] But when peace was concluded, British manufacturers sent immense quantities of goods to American ports, and the Northern manufacturers saw the market for their cottons, woollens, and iron rapidly slipping from them. They therefore appealed to Congress for aid in the shape of a protective tariff which would preserve the home market to them. One result of this appeal was the tariff act of 1816, which imposed a duty of about 20 per cent on all cotton and woollen goods imported from abroad, and specific duties on salt and iron. Thus the tariff became distinctly protective.

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[1] Even in England the government has decided to reëstablish customs duties on cereals in order to pay the expenses of the South African War.

Customs duties are established by law. They are either *ad valorem*, *i.e.* proportionate to the value of goods, or *specific*, *i.e.* determined by the weight or volume of goods. The first are more equitable, the second more simple. But it is no easy matter to apply the law justly in either case. In the first place, *ad valorem* duties give rise to false declarations of the value of goods. In order to prevent this the customs officials sometimes possess the right of *preëmption*, by which they can purchase imported goods at their estimated value; this rule, however, has little effect. When, on the other hand, duties are *specific*, *i.e.* determined by the number, weight, or volume of certain kinds and classes of goods, it is necessary to prepare complicated and lengthy classifications of goods; and even then there are apt to be instances of flagrant injustice. The present system in this country is a combination of both kinds of duties.

By 1824, eight years after the tariff act of 1816, of which Calhoun had been one of the chief supporters, the Southerners became the declared enemies of protective tariffs. The tariff, in their opinion, was of no benefit to them, whereas it favored the agriculturists of the West and the manufacturers of the North. The national policy, however, continued to be protectionist, although from 1833 to 1842 and from 1846 to 1861 duties were reduced toward a revenue basis. In 1861 the Morrill tariff restored duties to about the level of 1845, but increased the duties on iron and wool.

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[1] In 1803 there were four cotton factories in the country. Five years later there were fifteen mills, with eight thousand spindles. By 1811 the number of spindles had increased tenfold, — to eighty thousand, — and in 1815 there were five hundred thousand spindles in operation. The home consumption of cotton illustrates the same development. In 1800 American manufacturers consumed five hundred bales of cotton; in 1815 they used ninety thousand bales.

When the Civil War broke out, the government was obliged to seize upon every possible source of revenue, and duties on imports were naturally made to furnish their share of the burden. It was necessary, moreover, to tax foreign goods heavily in order not to place at a disadvantage those domestic producers whose goods were now heavily taxed. Accordingly, the "war tariffs" of 1862 and 1864 imposed duties on all imports, and effected a general increase of the rates. When peace was established, these war tariffs were permitted to remain practically unchanged for nearly twenty years, although the internal taxes had been removed. In 1883 some duties were lowered, but others were raised, and the general character of the tariff was not altered. In 1890 the McKinley tariff removed the revenue duties on raw sugar and some other articles, but increased the protective duties on articles that competed with domestic products. Again in 1894 a reverse movement took place, when the Wilson tariff reduced the duties on most protected commodities, reimposed a revenue duty on raw sugar, and placed wool, copper, and lumber on the free list. Finally, in 1897, the Dingley tariff was enacted. This act increased the duty on most goods, although it left copper on the free list and reduced the duty on steel rails. It imposed, on the average, a tax of about 50 per cent of the value of goods imported.[1]

The prevailing tendency among Western nations thus appears to be decidedly in favor of protection. In economic theory, however, there has been no such marked protectionist reaction as in the commercial policy of many nations. Indeed, the majority of economists seem to have remained faithful to the classical doctrines on this subject. Nevertheless, the German economist Friedrich List, in his "National System of Political Economy" (1841), and the American economist Henry C. Carey, in his "Principles of Social Science" (1856), had already attacked the so-called Manchester doctrine at the very time that this doctrine was in the full tide of popularity. The violent reaction that has taken place in our own days against the classical school, although not directed especially against this point of its system, has contributed none the less to shake our faith in the absolute and rigid principles of classical political economy. To-day, economists of the realist or historical school insist that the commercial policy of a nation must be suited to its own particular conditions.

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[1] The tariff history of the United States may be found in Taussig, "Tariff History of the United States"; Bolles, "Financial History of the United States"; Sumner, "History of Protectionism in the United States"; and W. M. Daniels, "The Elements of Public Finance."

VI. The Doctrine of Protection

No question in political economy has stirred up more controversy, caused more volumes to be written, or even occasioned more warfare, than that of international commerce. Why should this be so? Is not commerce between nations in all points similar to trade between individuals? Is it not, like private trade, simply an ordinary and normal form of exchange, and, if so, why do we need a special theory of international trade? If exchange is in itself a good thing, how can there be anything dangerous in the purely accidental circumstance that the two parties to the transaction are separated by a national boundary?

We have already learned that in exchange between individuals the division of labor, according to which, for example, one man produces only shoes while another produces only bread, secures for both participants a greater sum total of satisfaction and comfort than would be available if each were compelled to provide himself directly with bread and shoes. When left entirely to themselves, people exchange goods because it is profitable for them to do so. Free traders assert that the same is true of international trade, and that free exchange between nations permits us to obtain some goods at the cost of less labor and capital than when they are produced at home. If, for example, the American farmer can raise 100 bushels of wheat by 100 days' labor, and our silk manufacturers can produce 25 yards of silk in 120 days; if, on the other hand, in France 25 yards of silk require only 90 days' work, while it takes 115 days to raise 100 bushels of wheat: here are conditions which make it eminently desirable for French silk producers and American wheat producers to exchange their goods. For if international exchange were cut off, 100 bushels of wheat and 25 yards of silk would cost 220 days' labor in this country and 205 days' labor in France; but by producing silk for both countries, the Frenchman can buy more wheat; by producing wheat for the French as well as the home market the American can buy more silk for a given amount of labor.[1]

This, at all events, is the standpoint of the classical economists. They do not admit or conceive that international trade can be governed by other than the general principles which regulate all trade. The problem of foreign commercial policy is no problem at all. Exchange, they declare, is a form of the division of labor (the marvellous effects of which have already been explained). Its advantages are reciprocal, and its utility is absolutely independent of the question whether or not those who engage in it are citizens of the same or of different countries.

But public opinion generally does not profess this superb indifference. It admits that free trade may be preferable theoretically, and might even conduce best to the welfare of humanity. Nor do protectionists pretend to be enemies of commerce between nations; and they prove this abundantly by their efforts to increase such trade and the sacrifices which they are willing to make in order to establish international routes and railways. But nations, or rather the men that govern them, are not accustomed to speculate on the interest and welfare of humanity in general. They usually limit themselves to caring for the interests of the particular country in which they live; and this can hardly be regarded as a criminal offence. They contend, — rightly or wrongly, for this is the point at issue, — that international commerce, when left to take care of itself, is liable to ruin the industry of a nation, to restrict or even to stifle its productive forces, and indirectly to endanger its very existence. They hold that international trade does not confer equal and reciprocal advantages on both participants; that it may lead to the enrichment of one nation and the ruin of the other. Therefore it behooves a nation to beware that it shall not be exploited by its commercial rivals.

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[1] Throughout this discussion of free trade and protection I shall endeavor so far as possible to use the very words that are employed by partisans of each doctrine — quoting free traders in support of free trade, and protectionists in defence of protective tariffs. — C. W. A. V.

They do not regard international trade as simply a form or application of the division of labor and of solidarity, but as a kind of warfare, and as one form of the "struggle for life" among nations. Just as the art of actual war consists in invading the enemy's territory without permitting him to invade ours, so the tactics of international trade should consist in inundating foreign countries with our own goods while not allowing these countries to export their goods to our shores. To accomplish this it is necessary to build up home industries so that they may become vigorous enough to keep out foreign goods and even to compete successfully with them in foreign markets. This has been the object of protectionism for many years, — an object which it seeks to attain by means of elaborate tactics based mainly on the following considerations: —

(1) As international trade possesses all the characteristics of a "struggle for life" among nations, it is likely to produce all the unfortunate effects that are inherent in economic warfare and competition, — even competition among individuals, — namely, the destruction of the weak. For instance: France, Switzerland, and Japan, because of cheaper labor and perhaps because of better natural facilities, can produce silk goods cheaper than the United States; therefore the unre-

stricted importation of foreign silks would destroy this branch of American industry, which now produces, annually, more than $100,000,000 worth of goods and employs 65,000 laborers receiving annual wages of nearly $21,000,000. For a large number of other American industries the case is very much the same.

Suppose, now, that the tariff on all these protected products be removed. Then a large share of the capital and labor now employed in them, including the 65,000 laborers and the $81,000,000 of capital employed in silk manufactures, would become unprofitable. What, in such an event, can the silk manufacturers do? They cannot turn to cotton manufacturing, because England produces cotton goods cheaper than we. They are, moreover, excluded from many other productive occupations because (under a system of absolute free trade) other countries are our superiors in these branches. What, then, shall they do? Will it be necessary for most of our manufacturing laborers, representing 22 per cent of the total population, to leave our cities and take to farming and cattle-raising, in which this country appears to be superior to other nations? We say "appears," because it is by no means certain that Russia will not be able to furnish the world with cereals cheaper than we, when her methods of production and her means of transportation have been brought up to date; nor is it at all certain that the Argentine Republic is not our natural superior in raising cattle and producing meat for exportation.

There is, however, one branch of production in which our natural advantages seem to be beyond contest, viz., that of raising raw cotton. Shall the manufacturers, and, in fact, the total population of the country, therefore migrate to the Southern cotton fields because cotton is the only, or almost the only, pursuit in which we are safe from ruinous foreign competition? Will there be room for all American labor and capital in this single branch of production? Is it not obvious that under these circumstances the remuneration for capital and labor, — if, indeed, for a great part of it there would be any remuneration at all, — would be ridiculously small, especially in view of the facts that the law of diminishing returns operates in this branch of production, and that the capital and labor now applied to cotton-raising already provide three-fourths of the world's demand for raw cotton?

Should any country prove inferior to others in *all* branches of production, that country would be dislodged from one occupation after another, and its only ultimate resource would be to transport its population and whatever capital it had left, to those countries which had triumphed over it in the competitive struggle.[1] Only thus could it profit by the conditions which assure the economic superiority of rival nations. In other words, if we can no longer bear foreign competition our only resource is to emigrate to foreign countries, — to Russia, or to South America, or to England! This, protectionists contend, is the logical outcome of a system that regards international trade simply as the method of economic organization best suited to getting the most out of the earth and its inhabitants, without reference to the fact that these inhabitants are divided into nations, and that each nation has the determination and the right to live and to prosper.

It is comprehensible, — protectionists continue, — that in the case of human beings an out-and-out Darwinist might willingly sacrifice individuals to the interest of the race or the species. But we cannot expect a nation to permit its own destruction for the sake of mankind as a whole. To expect this is all the more absurd when we bear in mind that the problem of international trade is fundamentally only a question of economic and commercial supremacy. The part played by the nations of the earth, however, is by no means confined to that of economic productivity. Shall we incur the risk of perhaps eliminating a new Greece from among the nations of the world simply because her arid soil may not enable her to produce goods as cheaply as her rivals?

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[1] This is what takes place in the case of commerce among various parts of the same country. Many counties in the United States have decreased in population between 1890 and 1900, despite the rapid growth of the total population. There is a strong tendency, moreover, toward the localization of certain branches of production in certain clearly defined districts. Interesting data regarding these phenomena are given by the Twelfth Census. But as these changes take place within the nation, and one part gains what the other loses, there is no need for governmental intervention.

(2) Let it be granted that in the struggle for supremacy no nation would succumb entirely, and that each nation would succeed in finding some branch of production in which it could retain its superiority, and to which all its productive energies would be devoted. Could this be called a desirable state of affairs? The free trade school replies affirmatively, because it considers this result as a vast application of the division of labor. Free traders delight in regarding the universe as an immense work-shop in which each nation produces but one kind of goods, namely, those which it can by nature produce best and most easily; they contend that such a system would effect the completest utilization of the productive forces of our planet and of humanity. Thus France would produce only fine wines and objects of art, England would make textiles, China would raise only raw silk and tea, Japan would raise rice and raw silk, Australia would devote her productive energy to wool, Switzerland to silk goods, Russia to wheat, Spain to olives and fruit, Belgium to firearms, Scandinavia to dairy products, Brazil to coffee, Canada to lumber, Austria-Hungary to leather goods, and the United States to raw cotton.

But in this case the national interest is entirely sacrificed to a supposed "general" interest which is purely an abstraction. Such an ideal as this, — admitting that it could be realized, — would involve the degradation of all nations and consequently that of the whole human race. It has been found that for individuals specialization in a single kind of work is liable to prove disastrous to physical, intellectual, and moral development. What, then, would be its effects for a whole nation? A country in which all persons were engaged in the same occupation would be nothing more than an amorphous mass, a monstrous thing without intelligence and without vitality. Biology teaches that the development of an organism and its rank in the scale of life are directly determined by the variety and number of its functions and the differentiation of the organs that perform these functions. Exactly the same is true of a nation. If it would seek to rise to the level of a high and genuine civilization, it must endeavor to encourage all forms of social activity, all manifestations of national energy, and it must therefore take care that foreign competition does not destroy them one after the other.

(3) The importation of foreign products, if not counterbalanced by a corresponding exportation of our own products, is likely to ruin a country by removing its money and reducing it to the position of a debtor nation. The importing nation will pay with money so long as it possesses any, whereupon it will be compelled to borrow the money required to pay for its purchases abroad. Indeed, this money may be borrowed from the very nations to which it must be paid; in which case the situation becomes worse than before, because there is thus added to the debt incurred by imports the debt made by borrowing money and the necessity for paying interest on it. A country may in this manner be steadily and surely hastened toward bankruptcy. Such, for example, has been the experience of Portugal and Turkey.[1]

Political economy, it is true, teaches that imports sooner or later give rise to exports. But this law — admitting its validity as clearly established — is not sufficient to reassure protectionists. In fact, our explanation (page 299) demonstrated that although imports inevitably lead to exports, they do this by effecting a rise in the rate of exchange, an outflow of metallic money, and a general fall in prices. All these effects are very detrimental to a nation. They are, moreover, singularly aggravated when a nation, in order to meet its obligations, has recourse to loans.

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[1] This was the sense in which Cato declared: *Patrem familias vendacem, non emacem esse oportet.* ("De Agricultura.") The Mosaic law says: "Observe to do all the commandments which I command thee to-day. . . . thou shalt lend unto many nations, but thou shalt not borrow; and thou shalt reign over many nations, but they shall not reign over thee." (Deuteronomy xv. 6.) This command, to be sure, refers to loans and not to sales; but these are ultimately the same, inasmuch as a purchasing nation in the long run always becomes a debtor nation.

(4) Protectionists advance the fiscal argument that customs duties are the best kind of taxes, because they are paid by foreign countries. A nation should therefore not hesitate to impose them, since they are advantageous not only as protecting home industries, but also as procuring resources without any cost to the citizens of a nation.

The above arguments in favor of protection may be regarded as typical; we encounter them in one form or another in every country where the problem of a commercial policy has given rise to controversy. Nowhere, however, has the problem of international trade been discussed more persistently than in the United States. Here it has been for many years in the foreground of political discussion and has received an amount of public attention beyond all proportion to its real and relative importance. Innumerable theories, some absurdly naïve and others bewilderingly elaborate, have been advanced in this country in defence of "protection" or of "free trade."

While it is of course entirely beyond the scope of this volume to attempt anything like an exhaustive discussion of the problems involved, it may not be amiss, before terminating this section, to give a brief statement of some of the theories that are most frequently employed in the United States in defence of protection.

It is often claimed that a restrictive policy is a wise economy of the labor of the people. "The national economy of labor," says R. E. Thompson, "consists not in getting on with as little as possible of it, but in finding remunerative employment for as much of it as possible. If labor be the source of wealth, then that country must advance to wealth which has work for all who are willing and able to do it."[1] The greater the variety of industries, the more the demand for labor and the better the labor is paid; for instead of two workmen competing for every job, we shall have two masters, two sorts of masters, running after every workman. The creation of a diversified industry, furthermore, introduces such a change into farming itself as enables the farmer to employ a greater variety of labor. A home market takes the place of the distant one, and crops are grown which require more care and attention, but which bring larger profits. Farming passes out of its wasteful *extensive* phase into the *intensive* stage, in which its operations are more productive and profitable.

The natural drift and bent of the American character toward the mechanic arts and the inventions that facilitate them, would, in the absence or the undue subordination of the manufacturing industries, find little or no vent; the strongest side of the national intellect and the brightest gifts of the people would have no opportunities for development.

Protection to industry is as much needed by the farmer as by the manufacturer. Just as the laborer's prosperity is measured by the relation of his wages to current prices, and not by the latter alone, so the farmer's is measured by the relation of the price of raw materials to the price of manufactured goods, — including food under the former, — and not by the price of either one alone. Wherever the manufacturer is found at work, the prices of the two converge; wherever he is found wanting, and the farmer stands alone, their prices diverge. When, in accordance with the classical or cosmopolitan theory, some nations produce almost exclusively raw materials, and exchange them for manufactured goods from abroad, one side pays for the transportation of bulky articles over great distances, while the other pays for the transfer of goods of the same value but more compact form. The producer of food and of raw materials has to bear the heaviest burden of this sort, namely, the cost of transportation for bulky commodities.

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[1] R. E. Thompson, "Political Economy" (Philadelphia).

Protection to industry gives the farmer a near, abundant and steady market for his breadstuffs, and creates a market for crops more remunerative than grain. The principal European market for our wheat and corn is furnished by England and is the most unsteady market that can be thought of.

Whatever policy increases the number of those that are not engaged in farming, but must live on its products and pay for them, is the one which secures to the farmer the best and steadiest remuneration. The creation of a varied industry, moreover, enables the farmer to enrich himself without impoverishing the soil, whereas his dependence on foreign markets leads him to produce crops that exhaust the soil and that reduce his farm to a wheat factory or a corn factory. A variety of industries brings the farmer and the artisan close together and gives the former facilities for making returns to the soil that he would not otherwise enjoy. It makes it worth while to farm more carefully, through the certainty of a permanent local market. Protection, furthermore, diminishes the risk of farming by giving variety to its products. The farmer who depends on exportation puts, so to speak, "all his eggs in one basket"; but when the consumer is close at hand, he can raise and sell a variety of crops. If some of these crops fail, others are likely to succeed.

By bringing the producer and the consumer near to each other, the restrictive policy diminishes their need of the trader, and weakens his power over them. The heavy tax of transportation is saved; men are set free from that most laborious and unproductive occupation to engage in others which are productive, and which this very policy has called into existence.

The protectionist regards domestic trade always as more profitable than foreign trade. He maintains that it is more desirable to employ American capital in producing some of the goods which we usually import, than to employ it in purchasing these goods from abroad. Therefore, he argues, we must remove the obstacles in the way of making manufactures at home profitable. A protective tariff does this, and is often the only way to create a varied industry in a new or poor country that could not otherwise possess it. John Stuart Mill, although he was one of the most ardent disciples of free trade, admitted that the superiority of one country over another in a particular branch of industry often arises from having begun it earlier. " A country," says Mill, " which has skill and experience to acquire, may in other respects be better adapted to the production than those earlier in the field; and, besides, it is a just remark that nothing has a greater tendency to produce improvement in any branch of production than its trial under a new set of conditions. But it cannot be expected that individuals should at their own risk, or rather to their certain loss, introduce a new manufacture and bear the burthen of carrying it on until the producers have been educated up to the level of those with whom the processes have become traditional. A protecting duty continued for a reasonable time will sometimes be the least inconvenient mode in which a country can tax itself for the support of such an experiment."

Protectionists go so far as to assert that the competition of home producers in the protected industry soon reduces prices to a point that is not above the ordinary level of profits in other industries. Protection, they hold, simply overcomes the obstacles to cheap production, namely: the risk of engaging capital in large undertakings for which the home market is not secured; the inexperience of the laboring classes, whose industrial education is an investment that pays only in the long run; and the delay that is required to organize an industry and accumulate the capital that makes it possible to produce on a large scale.[1]

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[1] A good discussion of this point from the point of view of a free trader is given in Cairnes' " Some Leading Principles of Political Economy."

One eminent American economist, Professor S. N. Patten, has applied considerable ingenuity to the defence of protection. He distinguishes what he calls "static" societies from "dynamic" societies, and regards the United States as the type of a "dynamic" society. Our ideal, he maintains, must stand in sharp contrast with the static ideal advocated by most free traders. "The older theories of economics have always pushed to the front the conception of a static society, in which all the various elements would harmonize and thus form the highest state of civilization. The ideal I wish to emphasize, on the contrary, is based on the changing dynamic conditions which are necessary for any people to pass through in its progress toward the highest possible social state. Whether we shall have a static or dynamic society is really the centre of the discussion about the tariff."

"The American people are in a dynamic state. There is at the present time a constant growth of population, and hence an increased number of laborers must find employment in some way. We must therefore continually seek for new opportunities for labor in which this increase of population can find employment. . . . The American people should be more progressive than those of Europe. The soil we occupy is newer than that of Europe, the mines of which we make use are superior, and these conditions, coupled with the spirit of activity which fills the American people, should push us along into a higher stage of civilization much more rapidly that it is possible for the people of older civilizations to advance."

Professor Patten does not believe that there is but one theory of political economy, the doctrines of which hold true for every civilization. The same forces, probably, are at work everywhere, but their relative importance varies with the industrial condition of each people. It is therefore quite possible that the best economic policy for America may be very different from that of other nations.

"The world's progress is now dependent upon the development of internal resources, and not of external trade. We need a systematic development of all those opportunities for labor with which each country has been endowed by nature. We must make a better use of all our natural resources if the world is to advance to a higher industrial state. Progress must come from the development of large continental nations, rich in natural resources. Small nations, deficient in many of those natural resources needed for a nation's development, must rely largely upon trade to obtain those things in which their resources are deficient. To such a nation the profits of trade can to a large degree be accepted as the criterion of national prosperity; but large continental nations must look nearer the real source of national prosperity to obtain their criterions. They must become successful by the development of their natural resources. Their land and their mines must be opened up and the productive capacity of each laborer must be increased."

In answer to his own query, Shall the ideal of American civilization be national or cosmopolitan? Professor Patten declares that "nationalism is a dynamic movement, and seeks to bring each nation through a series of changes and developments that would bring a better harmony between its social conditions and its economic environment. It assumes that each nationality through differences of climate, soil, and other natural conditions has an economic environment peculiar to itself to which a particular type of man is best adjusted, and that a series of nations of different types, each fitted to its own environment, will make a better use of the world and reach a higher civilization as a whole than any one type could if it endeavored to occupy the whole world and retain the common characteristics. . . . Adjust the people of each nation to its own environment and mankind will be better adjusted to natural conditions of the whole world than in any other way."[1]

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[1] S. N. Patten, "The Economic Basis of Protection" (Philadelphia, 1890).

VII. The Doctrine of Free Trade

Free traders usually begin by refuting the arguments just enumerated.

The argument drawn from the dangers of free competition, they admit, produces a great impression. But, observe the free traders, note what singular changes this argument has undergone, and to what contradictions it leads! Formerly it was maintained that the weak must be protected against the strong, the young countries against the old. Thompson, for instance, declared that protection aims to overcome the initial obstacles in the way of founding new and diversified industries. This was known as tutelary protection, designed to educate labor and capital in hitherto untried occupations, and in the United States was known as "protection to infant industries." It was remarked that young industries have to contend with great disadvantages, — that it is not easy for them to withstand the competition of enterprises already in possession of vast markets, and therefore enabled by reason of extensive production to carry the division of labor and large-scale methods to the highest degree of perfection. The struggle is all the more difficult for the reason that in new countries wages are high and capital is relatively scarce. It is well known that young trees cannot easily be made to grow in close proximity to old ones, because the latter, having already taken all the light from above as well as all the nutriment of the soil, leave but little room for the others to take root or to stretch out their branches.

The argument seemed plausible. It seemed to be borne out by the experience of new countries, such as Australia and Canada, which, although educated in the school of pure free trade, did not hesitate to raise up protective barriers against other countries, — even against England.

The favorite example for protectionists the world over is the United States. Would American industries have grown so rapidly if they had been obliged in the beginning to struggle unaided against English manufactures? Would they not at the very outset have been driven from the field? Perhaps so.[1] But the United States has brilliantly accomplished its economic evolution in this respect, and now ranks among the greatest manufacturing nations of the earth. And now that the nation is strong industrially, and its "infant industries" have been fostered to maturity, has it torn down the protective barrier which sheltered them in their infancy? By no means! Mr. David A. Wells declares expressly that "there has never been an instance in the history of the country where the representatives of such [infant] industries, who have enjoyed protection for a long series of years, have been willing to submit to a reduction of the tariff, or have proposed it. But on the contrary, their demands for still higher and higher duties are insatiable and never intermitted." Americans continue the protectionist policy, and at the same time abandon the infant industry argument as unworthy of a great industrial nation. By an inverse argument they now declare that a nation that is advanced in civilization, that is wealthy and in the habit of paying high wages to its laborers, must be protected against nations possessing a retrograde civilization and paying low wages for labor.[2]

"Protection," says Professor Patton, in so many words,

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[1] According to free-trade authorities, principally Professor F. W. Taussig, the low duties prevailing during the thirty years before the Civil War (the so-called "era of free trade") do not seem to have checked the growth of manufactures. "In general," says Professor Taussig, "the extent to which mechanical branches of production have been brought into existence and maintained by the protective system is greatly exaggerated by its advocates; and even the character and direction of their development have been influenced less than, on grounds of general reasoning, might have been expected.

[2] American economists point out that just as Europe and Asia lower the American standard of civilization and living by sending their poor and famished emigrants to the United States, so also they are working toward the same result by sending us their cheap products. Both our higher civilization and our higher wages must be defended against the invasion of cheap labor and the importation of goods produced by cheap labor.

"now changes from a temporary expedient to gain specific ends to a consistent endeavor to keep society dynamic and progressive." Or, in the words of another well-known protectionist writer, "the products of America do not need protection against those of England because our industries are younger, but because they are made under a higher civilization."

Meanwhile, the nations of Europe declare that a high tariff barrier is indispensable to them precisely because they are old and require protection against the dangerous competition of new countries possessing the advantages of a cheap virgin soil and low taxes.

Hence, free traders ask: What conclusion must be drawn from this varied application of the protectionist argument? To whom is protection really necessary? Do the weak need it against the strong, or the strong against the weak? Do new countries require it against old ones, or the old against the new? What are we to think of an argument that is made to serve equally well for the defence of two exactly opposite doctrines?

Free traders regard the fear that a nation could ever be depopulated by international commerce as vain and absurd. The awful protectionist picture[2] of a nation dislodged by foreign competition from all the branches of production successively, — a nation reduced to the necessity of letting its soil lie fallow, and seeking an asylum within the boundaries of a successful competitor, — they consider unutterably fantastic. No country, however unfortunate, is likely to be inferior to others in *all* the branches of production. And if such a case should ever occur, if ever a nation were so harshly treated by fate or by nature as to be forced to work harder on its own land in order to live, than anywhere else, certainly the prohibition of foreign imports would not make it any richer or happier. In such a case as this, laborers and capitalists would soon discover the path that leads to better

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[1] George Gunton, "Social Economics," page 338.

[2] See page 322.

countries; and to prevent them from taking it would require, not a barrier of duties on imports, but a prison wall.

It is forgotten, moreover, in this argument, that international commerce tends always to take the form of barter. Every importation occasions a counter-current of exportation; for how can a nation be supposed to buy abroad without giving anything in exchange, — unless we assume that foreign nations will furnish their products gratuitously, in which case the situation of the importing nation would be more enviable than pitiable, and such a process as this could not possibly ruin it. If, in reality, any nation is too poor to send goods abroad, we may be perfectly sure that foreign countries will take care not to export anything to it.

When protectionists claim that the possession of a large quantity of money is a great advantage, and that protective tariffs, by discouraging imports, tend to create a favorable "balance of trade," they overlook the fundamental nature of international trade. To be sure, there are periods when a nation may sell more than it buys abroad, and will therefore collect a balance in money. But the accumulation of money in one country and its withdrawal from another will cause high prices to prevail in the former country and low prices in the latter. The former country thus becomes a good market in which to sell, and a bad market in which to buy; people will ship more goods than they would if the high prices did not prevail, and will take fewer goods from it; they will withdraw gold from the place where prices are high, for use in the place where prices are low. The experience of four centuries has demonstrated the futility of trying to interfere with this movement of specie. On the other hand, the same forces make it impossible or improbable that a nation will ever be drained of its metallic money by international trade.[1]

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[1] We have already explained why this is so. Even in the case of the South American Republics the cause for the scarcity of metallic money must be sought in the abuse of the credit system and issues of paper money, rather than in foreign imports.

It is absurd, moreover, to pretend as a general doctrine that protective tariffs are paid by foreign nations, and that they mean an increase of the public revenue without constituting a burden on the nation which imposes them.[1] How exceedingly convenient it would be if a nation could provide itself with a revenue simply by taking money, as it were, from the pockets of foreign exporters! Supposing that a government really possessed this remarkable power, is there not every reason to believe that it would not long remain a secret confined to one nation? Would not all nations hasten to adopt this excellent means of providing a revenue by shifting the burden of taxation to the shoulders of foreign competitors? Thus, when all nations had adopted protective duties as devices for taxing foreign countries, none would be better off than another, and their relative positions would be the same as before.

It is true that under exceptional circumstances the burden of customs duties may really be borne by foreign exporters.[2] But as a general rule, and by virtue of what is known as the shifting of taxation, every tax paid by a producer or by a merchant is ordinarily transferred to the purchaser of the taxed goods and is ultimately paid by the consumer. This shifting of the burden from producer to consumer is even more likely to be effected in the case of foreign than of native products.

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[1] See page 325.

[2] This case was pointed out by John Stuart Mill. Every rise in prices entails a reduction of consumption. If the article in question is a foreign product, the foreign producer will be compelled to consider whether it would not be advisable to make a sacrifice of part of his profits and reduce the price of his goods to the extent of the tariff, in order to retain all his customers by permitting them thus to buy the goods at the former price. It is evident that if the price is increased, many former purchasers will not continue to buy. Hence the producer must face the alternative of decreasing his sales or reducing his prices to the extent of all or part of the duty. All things considered, it is not unlikely that in some cases his interest will lead him to choose the second alternative. But in order that foreign producers shall submit to this burden, two conditions are requisite: (*a*) the cost of production must be low enough to permit a reduction in the price received by producers; (*b*) producers must be unable to dispose of their goods in other markets.

But let us for a moment admit the entire validity of the protectionist argument that protective duties are really borne by the foreign producer and exporter. What will be the result? Evidently, the price of the imported goods will not be changed, inasmuch as the duty is paid by the producer, and not added to the price which must be paid by the consumer. Consequently, the competition of foreign goods, and the discouraging influence of this competition on home industry, will in no wise be diminished. Therefore, home industries will attain none of the objects for which protection was considered desirable; protective duties will neither exclude foreign goods nor raise prices. Hence, to the many arguments already brought against protection, we must add the objection that *it does not protect.* Protective duties, if they were borne by the foreign producer, would accomplish absolutely none of the objects for which they are established.

The oft-repeated argument that protection is needed to diversify the occupations of a people rests on the hypothesis that it is impossible for manufacturing industry to exist in a young country unless it receives fostering aid. But this hypothesis is unwarranted. When a country is first settled and sparsely populated, it possesses no sufficient supply of labor for the establishment of manufactures on an extensive scale. Gradually, however, as population increases, there will arise various branches of domestic industry which will supplement and assist in various ways the labor of those who are engaged in agriculture. With the cultivation of less accessible and poorer lands, the gains of farming continue to decrease, and the law of diminishing returns gives rise to the application of capital and labor to manufactures and transportation as soon as any department of these occupations offers promise of greater remuneration than that procured in farming under the least favorable circumstances. The imposition of protective duties, however, introduces a disturbing element, and induces labor and capital to engage in less profitable branches than they would otherwise have chosen. To the extent that they effect this diversion of labor and capital, they imply production carried on under more onerous conditions. The practical result will be not only a general rise of prices, but an increase in the cost — cost, be it remembered, in the sense not of mere money outlay, but of actual difficulty, of real sacrifice — of producing goods. These higher prices (or this higher cost) are paid by whom? There is only one possible answer: By the people of the protectionist country. Thus tariffs seek to accomplish at great cost what would otherwise have been effected spontaneously and far more cheaply by the natural evolution of industry in such a country as the United States.

Having regard to the geographical position, extent of territory, and extraordinary natural resources of this country, as well as to the character of its people, trained in all the arts of civilization and distinguished beyond all others by their eminent mechanical and business talents, there seems no valid reason why we should not take a position of commanding influence in the world of industry and commerce, — a position to which no other people on earth could aspire. But if we desire to command a market for our products in all quarters of the world, we must be prepared to admit the products of other countries freely to our own markets, and must learn to seek the benefits of international trade not in the vain ambition of making other countries pay tribute in gold and silver, but in that which constitutes its proper end and only rational purpose, — the greater cheapening of commodities, and the increased abundance and comfort which result to the whole family of mankind.

The argument that protection produces economy by having goods consumed near the point of production, is in a large measure fallacious, for if people import an article from a distance it shows that the difference in price more than covers its cost of transportation. Therefore, the economy of importing goods must be sufficiently great to cover the expenses of the whole trading class; else goods would not be imported. The idea advanced by some protectionists that the exporting nation bears the burden of transporting goods, and the exporters of raw products consequently bear a heavier burden than exporters of manufactured goods, is equally unfounded. In order to prove the fallacy of this assumption, let us inquire what would be the effect of reducing from 20 cents to 10 cents the cost of transporting a bushel of wheat from New York to Liverpool. If, after this reduction in freight, American wheat continued to sell in England at the same price as it did before, the profit realized on every bushel of American wheat sold in England would be increased by 10 cents. This opportunity of securing extra profit would inevitably cause increased supplies of American wheat to be sent to England, and this would continue until the price of American wheat was so much reduced in England that it was not more profitable to sell it there than in America. The difference in the price of wheat in New York and in England cannot be permanently greater than is the cost of exporting wheat from New York to England. If therefore this cost is reduced, the price of American wheat in England must be also reduced by nearly an equivalent amount. The fall in price would not probably be quite equal to the reduction in the cost of carriage; because as American wheat became cheaper in England, the demand for it would become greater, and this increase in demand might produce a slight rise in its price in America. It still, however, is certain that a lessening of the cost of carriage would produce an almost equivalent reduction of price in the importing country; it follows, therefore, that the cost of carriage, instead of being borne by the exporting country, falls almost entirely upon the importing country. The first effect of a rise in the freight between America and England obviously would be to increase the price, to the English consumer, of wheat and all other products imported from America.

The immediate effect of levying a protective duty upon a foreign product is to increase by the amount of the duty the expense of importing the commodity. This means that the foreign product must be sold at a higher price. If the foreign product formerly sold at $1.00 and the duty is 50 per cent, the result will be to raise the price of the article to about $1.50. This is the very object of the duty, for the increased price is intended to induce domestic producers to engage in the industry. If domestic producers could have made a fair profit before the duty was imposed, there is manifestly no need to encourage capital to engage in this industry by offering the inducement of artificially high prices. Protection, therefore, by causing artificially high prices, cannot under any circumstances be regarded as conducing to cheaper production. Very few of our "infant industries" regard themselves as self-supporting, and the industry that is not self-supporting causes a permanent economic waste to the whole community. Repeatedly, moreover, domestic producers in this country have combined to raise prices behind the barriers of the protective tariff. Suppose, for example, that foreign goods can be sold here at $1.00, and that a duty of 50 cents is imposed in order to preserve the home market for our own producers. In this event foreign goods cannot be sold here for less than $1.50. Now suppose that improved methods of production have made it possible for American producers to sell this article profitably at $1.25. If they form a combination, they can keep the price at a level far above the cost of production plus a reasonable profit; they could, in the example here given, keep the price at $1.49, because the duty excludes foreign competition at any price less than $1.50. As a matter of fact, a number of our important products are now regularly sold to foreign customers at prices lower than those charged to American consumers. Our supposition is therefore no purely imaginary one.

When there is no such combination among American producers as that adverted to, the article above referred to will sell for $1.25, if domestic producers can supply all the domestic demand. In this case domestic consumers bear a burden of 25 cents on each article bought. *In any case*, domestic consumers are sure to bear a burden proportionate to the greater expense at which the domestic article is produced. This burden on consumers ceases only when the domestic money cost of production becomes as low as the foreign cost, — and then the protective duty is no longer needed.

The essential features of the free-trade argument may be summed up in the following five points: —

(1) From the view-point of *consumption*, protective duties tend beyond all question either to actually increase the cost of living or to prevent its decrease. Living certainly is cheaper in free-trade countries like Belgium and England, or semi-free-trade countries like Switzerland, than in the United States or in France.

Import duties usually cause an increase not only in the price of imported goods upon which the duty is levied, but in the price of all similar goods consumed within the country. In this way the public pays, out of its own pocket, in the guise of increased prices, much more than the government actually collects in customs duties. Suppose for instance that France imports 40,000,000 bushels of wheat, and that this wheat is worth, at the port of arrival, $1.00 per bushel. Because of foreign competition in wheat, the 300,000,000 bushels raised in France will also bring only $1.00 per bushel. This is precisely why French farmers complain. Now suppose that in accordance with the demands of the agriculturists, a duty of 50 cents per bushel is levied on imported wheat.[1] The government will then collect, through its customs officials, (provided the duty has not reduced imports) the sum of $20,000,000. But consider the position of the general public. Wheat consumers will now bear an additional burden of 50 cents per bushel of foreign wheat, or a total of $20,000,000, — the amount paid to the government. But this is not all; the consumers will pay considerably more than this. French producers will naturally sell their wheat at the same price as foreign wheat, and the French people will therefore pay 50 cents more for every bushel of wheat raised in France, that is, an additional sum of $150,000,000. Above and beyond the amount brought into the government treasury, $150,000,000 must be paid by the public to native wheat-growers; thus the consumers will be compelled to bear a total burden of $170,000,000, because of the protective duty on wheat which increases the government revenues by merely $20,000,000.

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[1] The strongest advocates of protection in France and Germany are the agricultural classes. In Germany their influence has recently resulted in the passage of a high protectionist duty on imported cereals.

It is true that the inverse effect may take place. It may happen that the protective duty, by keeping prices at an artificially high level, will give an excessive impetus to production, and then, because of relative overproduction, again entail a fall in prices. At the present time this very phenomenon is taking place in France with regard to wine-growing. The high duty put on foreign wines, and the subsequent rise in prices, led to so great a production of wine that it exceeded the demand and resulted in the failure of many wine-growers to dispose of their goods. The same result, although on a smaller scale, has taken place in French wheat-production.

When such effects as these are the result of protective duties, wherein does their advantage consist? Is it an advantage for a country to be inundated with its own products rather than with foreign goods? Is it not true, on the contrary, that overproduction at home is worse than overproduction abroad, so far as we are concerned? For against foreign overproduction we can defend ourselves very simply by purchasing no more than we require, whereas the refusal to buy native products will cause the ruin of some of our fellow-citizens.

(2) From the point of view of *distribution*, protective duties create injustice, because their effect is to guarantee an increased income to the producers of protected goods. And this favoritism is all the more objectionable in view of the fact that most governments persistently refuse to grant to laborers a legal minimum wage.

(3) Even from the standpoint of national *production*, which protective duties are supposed to foster and sustain, free traders contend that these duties really do an incontestable injury to home production by increasing the cost of raw materials (whenever there are duties on raw materials), implements, machinery, and all the equipment of productive enterprises.[1] We have already explained that all protective duties, whether on raw material or on manufactured goods, invite capital away from industries in which a nation has unparalleled advantages into industries where facilities are not so good. Their immediate effect, therefore, is to decrease the productivity of a nation's capital and labor by turning it from its natural channels into protected industries and thus causing economic loss.

It has been observed that when once any industry is protected there immediately arises the necessity to protect others, which are handicapped by having to pay higher prices for some of the goods they require. "Fire," says Fawcett, "is not more certain to spread amongst inflammable material than is protection, when once sanctioned, to embrace a constantly increasing number of industries within its influence. Each new protective duty that is imposed inevitably creates a demand for protection in other industries." Free traders assert, moreover, that nothing is better calculated to exert a deteriorating influence on a country than to encourage its industrial classes to be perpetually looking to the state for assistance. "This continual law-making about industry has been prolific of industrial and political mischief. It has tainted our political life with log-rolling, presidential wire-pulling, lobbying, and custom-house politics. It has created privileged classes in the free American community, who were saved from the risks and dangers of business to which the rest of us are liable."[1]

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[1] Sometimes goods are admitted to a country free of duty on condition that they shall be reëxported in a different form within a given space of time. Thus some countries admit iron, wheat, etc., free of duty on condition that they be reëxported as manufactured goods. The producer importing these goods must give some guarantee that they shall be exported again within a given period.

Drawbacks are duties which are repaid when goods brought into the country are again sent out of it. They are merely restituted customs duties.

(4) From the *commercial* point of view it has been noted that protective duties reduce imports and thus simultaneously tend to reduce exports. Hence they are entirely incompatible with the efforts made to faciliate intercourse between nations by building tunnels through mountains, constructing canals, spanning the seas with lines of subsidized ships, laying telegraphic cables, encouraging international expositions, and establishing international monetary regulations. Can anything be more absurd than to spend millions for digging canals and building roads, and then stationing customs officials at both ends or at the principal sea-ports of the nation in order to restrict the passage of as much merchandise as possible?

(5) From the point of view of *industrial progress* free traders hold that protective duties slacken progress by removing or attenuating foreign competition. Prince Bismarck in one of his political speeches spoke of those pike-fish that are sometimes placed in carp-ponds to keep the carps on the alert and prevent them from burying themselves in the mud. The comparison would be entirely appropriate in this connection. For a country to retain its rank as a great industrial and commercial power, — and this is precisely the aim of protectionists, — it must constantly renew its industrial equipment and eliminate those methods and implements that

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[1] W. S. Sumner, "Lectures on the History of Protection in the United States."

are not entirely up-to-date. This necessity is always more or less unpleasant to producers, and it is extremely questionable whether they would feel it or submit to it with good grace unless they were forced to do so by the pressure of foreign competition.

Thus far the free traders appear to have the better of the discussion. But there are two other arguments for protection that have considerable force, and that cannot be put aside so easily as the preceding ones.

The first — which we have already suggested — lies in the fact that a nation, having the right to exist as a nation, also has the right and the duty to develop all the dormant possibilities of economic development that lie within it, — agricultural, industrial, and commercial. It should strive to make the best, the completest, and the most diversified use of its soil, its climate, and the qualities of its population. It should not be willing merely to become a wheel in the universal mechanism, but should develop and preserve its own peculiar genius and native characteristics.

Protection may therefore be regarded as a kind of discipline, like that which prevents a pupil from having his tasks done by a companion more able than he and which thus obliges him to do them himself. Its purpose is not to raise prices, but to increase home production sufficiently to meet all the needs of the nation.

There is of course some truth in this argument. But, it may be asked, is not free trade a superior "educative" system by virtue of the severer discipline to which it subjects home industry and agriculture? Is it not better adapted to the development of the unknown resources of a country? This question cannot be answered dogmatically; it is one that each country must answer according to its own peculiar temperament and ideals.

The second argument is that the deplorable state of imminent war, or at least of armed peace, that characterizes the beginning of the twentieth century has created an abnormal situation and temporarily justifies the system of protection. As we happen to be living in a barbarous epoch wherein all nations fear the possibility of an almost universal war, it is natural that each country should defend the industries that are indispensable to its own safety. These indispensable industries include not only the production of weapons and of food, but also that of the coal which is necessary to propel trains and vessels, as well as the iron, horses, wheat, meat, cloth, leather, and all that is directly or remotely necessary to equip and maintain thousands of men under arms. England, to be sure, imports more than half her food supply from abroad; but she dares do this only because she is mistress of the great maritime routes, and because she expends colossal sums of money in order to retain her naval superiority. If ever she had reason to fear that her maritime intercourse might be interrupted, there is no doubt that she would at once adopt measures for increasing her agricultural production, even though artificial encouragement were found necessary. Considering the vast proportions which modern warfare would probably assume, and the probability that nearly the whole adult male population of belligerent nations would be brought under arms, as well as the likelihood that all the economic resources of the nation would be drawn upon, it may be truthfully said that every occupation aids to some extent in the national defence.

Granting all this, we must nevertheless inquire whether protection does not have precisely the effect of creating the danger against which it pretends to defend us. Is not a "tariff war" likely to provoke war of the bloodier sort? And would not free trade have the opposite effect by making war almost impossible? A long time ago, Montesquieu said that "the natural effect of commerce is to produce peace."

At all events, if protection is accepted as a military necessity, it must then be considered as a supplementary expense added to the war budget, and not as a national revenue

Thus, one American economist calculated that a certain spinning mill had cost the country more than an armed cruiser. This manner of considering the subject does not appeal to protectionists; they prefer keeping up the illusion of imaginary gains for the nation. But why should they fear to be frank? It would be better to declare boldly that protective duties and tariff wars are fully as good as armed peace and actual warfare. They are, perhaps, quite as expensive; but they may be necessary means for obtaining a due share in the world's prosperity and influence.

VIII. The Relative Importance of Foreign and Domestic Commerce

Whatever may be the theoretical merits of the policy of unrestricted foreign trade or of that which would erect tariff barriers between nations, it would be unjustifiable to leave this subject without calling attention to two matters which are often overlooked.

The nations of the earth differ widely in area, population, the nature of their soil and subsoil, in the qualities of their inhabitants and in the genius of their institutions. All these elements must be taken into account in the discussion of a commercial policy. The size of some countries is such that they could under no circumstances aspire to national self-sufficiency in economic matters. The principality of Monaco, with an area of eight square miles and a population of 13,000, or the grand duchy of Luxemburg, with an area of about 1000 square miles and a population of 218,000, would scarcely act wisely in cutting off foreign trade. This is equally true of Denmark, Switzerland, Belgium, Portugal, Greece, Holland, Norway, and Sweden, with populations ranging from 2,000,000 to 6,000,000. There is but little variety in the products of these nations. Because of their limited size, the uniformity of their climate and their soil, they lack a large number of raw materials. If these nations undertook to produce all kinds of commodities for themselves, the division of labor would necessarily be of the crudest sort.

Countries possessing large territory, but a very sparse population — like the Argentine Republic and Brazil — are in a somewhat different position, but one which is nevertheless not altogether unlike that of the above-mentioned countries. These vast territories contain unlimited and varied natural resources, but their small population, a great part of which consists of negroes or of uncivilized indigenous tribes, makes it impossible to carry out the division of labor to any great degree, except for a few branches of production.

The domestic commerce of such nations as Belgium and Holland, for instance, is of less importance than their foreign trade. The Dutch have become wealthy by importing and exporting goods, and their present principal source of gain is the forwarding trade. Norway has but few commodities to sell, and must buy a multitude of things abroad. Denmark, Switzerland, and several other nations occupy a similar position economically.

On the other hand, large nations, like Russia and the United States, possessing immense territorial dominions and a large population of varied character, are evidently in a much more favorable position for the development of their economic self-sufficiency. They form, as it were, economic worlds in themselves, and would suffer little loss from the interruption of international trade. Russia, with an area of over 8,000,000 square miles and a population of nearly 130,000,000, and the United States with an area of 3,000,000 square miles (excluding Alaska and our colonies) and a population of almost 80,000,000, evidently are not in the same category with Holland and Portugal. The United States occupies a compact strip across the Western Continent, extends from the subtropical regions to the region of long winters and short summers, and includes a greater variety of products than any other one country in the world. An elaborate system of communication and transportation, almost unlimited natural resources, and the singularly inventive turn of mind of our population, give the United States, with but one-fifth the population of China, a greater productive capacity than that country possesses.

Under these circumstances it is not surprising that our foreign commerce sinks into insignificance when compared with our domestic trade. The total value of imports and exports of the United States for the fiscal year 1902 was $2,285,040,349, and although this amount of foreign commerce was exceeded only by that of Great Britain and Germany, our domestic trade exceeded our foreign trade many times over. Within the borders of this nation lies the largest free-trade district in the world, with a volume of trade surpassing the entire foreign and domestic commerce of the United Kingdom.

It is of course a more difficult matter to ascertain the extent of domestic commerce than that of foreign trade. As all goods imported and exported must pass through the customs houses, where their kinds, quantities, and values go on record, the amount of foreign trade can be learned with comparative exactness. The same is not true of domestic trade. "The railroads are required to keep an account of the quantity of freight they carry, but not of the value, and the kinds of goods are given only roughly. On the watercourses it is still more difficult to know what the trade is; figures are published stating the number of tons of freight carried, but many of them are only estimated, and much freight never gets on record at all. If the long-distance traffic is thus imperfectly known, what shall be said of the local trade? Farm wagons, drays, local express companies, and delivery wagons do the transporting when the customer does not carry away his purchases by hand; only the dealers can give even an estimate of this business, and that they rarely do; still more rarely is the sum of the transactions of all dealers within a locality ever known with any degree of accuracy. Then there is a vast amount of trading in which merchants have no part; Peter and Andrew trade knives, two farmers in the backwoods trade horses, a gardener sells some potatoes to a neighbor — the volume of such transactions can of course never be known. Our compilation of statistics for domestic commerce will therefore be attended with much uncertainty."[1]

Some figures, however, recently compiled by the Treasury Bureau of Statistics, which has become a part of the newly founded cabinet Department of Commerce and Labor, estimate the internal commerce of the United States at $20,000,000,000, — more than the entire international commerce of the world. In arriving at this estimate, the Bureau of Statistics includes only one transaction in each article produced, whereas, in fact, a very large number of the articles produced pass through the hands of several middlemen before reaching the consumer.[2] The estimate is based on the figures of the Twelfth Census, which put the total value of manufactures in 1900 at $13,000,000,000, those of agriculture at nearly $4,000,000,000, and those of minerals at over $1,000,000,000. Adding to these the products of the fisheries, the total value of the products of the great industries of 1900 would be $18,000,000,000. The rapid growth of all lines of industry since 1900, especially in manufacturing, seems to justify the conclusion that even a single transaction in all the products of the country would mean an aggregate for 1902 of nearly $20,000,000,000.[3]

Estimating the domestic commerce of the country at former census years by the same method, the Bureau of Statistics finds that our total domestic commerce has grown approximately as follows: $2,000,000,000 in 1850; $3,500,000,000 in 1860; $6,250,000,000 in 1870; $7,750,000,000 in 1880; and $12,000,000,000 in 1890. It will be seen from this estimate that our internal commerce has increased 50 per cent in the decade from 1890 to 1900, and is ten times as large in 1902 as in 1850; meanwhile, from 1850 to 1900, the population has increased three and one-half times.

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[1] Clow, "Introduction to the Study of Commerce," p. 104.

[2] The term *commerce* applies only to the change of ownership, as we have explained; therefore goods which are kept by the producer for his own use do not properly fall under the head of commerce. But the amount of goods so kept is relatively small and constantly decreasing.

[3] Mr. C. C. Adams, in his "Commercial Geography," gives $28,000,000,000 as the value of our domestic trade, without, however, explaining how he reaches this figure. The same author is authority for the statement that the people of the United States buy $40 worth of home products for every dollar they expend for foreign goods.

The foreign commerce of the nation has also increased during this period, but it is far from approaching the importance of domestic commerce.

IX. Some Moderate Forms of Protection

Is there no other system to accomplish the object for which customs duties are devised? Can there not be protection without protective duties? Theoretically, yes; by means of premiums to producers.[1]

This method seems to offer none of the objections to which a system of import duties gives rise; it appears to be superior to protective duties for the following reasons: —

(1) Premiums can be graded at will, in such a manner as to protect those producers that most need protection, and not the others; while customs duties often establish an unequal protection, insufficient for the weak and unnecessary to the strong. Premiums can be adjusted to the cost of production, which is seldom exactly the same in any two establishments. Within any industry there may be ten or a hundred different costs of production. Some establishments barely manage to pay expenses. Others make large profits for selling at the same price that the first establishments receive.

(2) Premiums of this kind put no obstacle in the way of

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[1] Premiums on production must not be confounded with export premiums such as are employed by several nations (Germany, Austria, and France) in the case of sugar, and which produce the strange result that sugar is sold cheaper abroad by these countries than at home. It is likely that these premiums on exported sugar will be abolished very soon, in accordance with an international agreement made in 1902.

foreign commerce; they permit the development of exportation and importation and do not raise the price of goods, whereas customs duties involve an expensive administration and give rise to the systematic, demoralizing practice of smuggling.

(3) They are least likely to provoke international conflicts.

(4) They by no means hinder production, since they do not increase the price of raw materials, and are thus not open to the objection of artificially raising the cost of production. On the contrary, they may be instituted under conditions that will stimulate the progress of particular industries.

(5) Finally, and above all, this system does not purport to be anything else than what it really is, namely, a sacrifice imposed upon the nation for reasons of public utility. It gives rise to no misconceptions, and sanctions no misrepresentations. The public knows that it is paying for this "protection," and knows exactly how much it pays. Herein consists the great economic and moral superiority of this method. Customs duties, on the other hand, give rise among the people to a dangerous misunderstanding by leading them to regard as a gain that which in reality is a burden.

But this last characteristic explains why protectionists prefer customs duties. Premiums or bounties to producers would make the matter too plain. This, moreover, is why such a system as we have suggested can never become popular. It makes altogether too palpable and evident the fact that a sacrifice is required of all citizens and a privilege accorded to the few, thus violating the sentiment of equality. Its successful application, furthermore, requires a discernment and an impartiality which can scarcely be hoped for in any human government.[1]

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[1] Other devices have also been employed for the same purposes: — (a) *differential charges*, by which, for example in Austria, special railroad rates are accorded with a view to encouraging the exportation of certain commodities; (b) *guaranteed interest* on capital invested in some new industry which

Some years ago there began a movement which, without advocating either protection or free trade in general, favored *reciprocity* in the matter of customs tariffs. In England this is called *fair trade*, as opposed to *free trade*. It is oftentimes argued that by the adoption of restrictions upon trade nations do each other injury. It is said that free trade would be all very well if every nation adopted it; but as long as other nations impose tariffs on our goods, we must be prepared to retaliate. Some of those who hold this view regard a tariff simply as a diplomatic means of securing mutual concessions, "sometimes treating these concessions as steps toward a general policy of tariff reduction the world over, which was the plan pursued by the ministers of Napoleon III; sometimes bargaining for them as special privileges not to be granted to the world in general, which is the idea underlying the present reciprocity treaties of the United States.

"When this view is accepted, a policy of tariff warfare follows as a matter of course. There are times when it seems as though a great many nations were carried away with this spirit of commercial hostility."[1] When this system is employed by way of reprisals to compel a protectionist country to reduce its duties, — if, for example, England should answer the high tariffs of the United States by heavily taxing American products, — it may very well be justified. In such a case, however, the question of tariffs is political rather than economic.

But if we regard this conception as a scientific theory, we find that it has no logical basis. For if the protectionist system is good, it should be adopted; if it is bad, it should be abandoned. The question whether other countries have

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it is desirable to encourage (often used in South America and Mexico); (c) *tax exemptions or reductions* for new industries which a government seeks to acclimatize, — frequent examples of which method are offered by Hungary and Roumania.

[1] A. T. Hadley, "Economics," p. 444.

adopted it or not has no bearing on the problem; that is their concern, not ours. No doubt if the states of Europe were to levy duties on American products, they would harm the United States. But they would also harm themselves; and the evil which we are in a position to do our neighbors cannot be regarded as a compensation for that which we inflict upon ourselves.

Another form of moderate protection consists of *countervailing duties*. Its advocates assert that when a country is more heavily burdened by taxation than foreign nations, it should, in order to reëstablish equality in competition, burden foreign products with duties at least equal to the taxes paid by native producers.

We must be careful to understand just what this means. If it means simply that those goods which within the country are burdened with certain taxes, — like whiskey and tobacco, — should be taxed to the same extent when imported from abroad, no one will challenge this principle of fiscal equality. But if it means that whenever a country has the misfortune to be oppressed by heavy taxes of all kinds, it can lighten this burden by imposing high customs duties on foreign goods, it is utterly absurd. Indeed, such an argument is entirely based on the notion that customs duties are paid by foreign exporters. If, as we have endeavored to show, these duties really fall on our own people in the form of higher prices, then we may grasp the peculiar nature of this plan of compensation, which, under pretence of equalizing the struggle, doubles the burdens of a nation that is already most heavily laden.

X. Commercial Treaties

Between the system of free trade (meaning *laissez faire* and competition) and that of protection (meaning national autonomy and *governmental regulation*) there is fortunately another commercial policy, namely, that which is founded on international agreement and which we may call the *con-*

tractual system. It may be regarded as a true outcome of the spirit of international amity, and the expression of voluntary solidarity. We have already given utterance to the hope that this solidarity will ultimately become the normal method of regulating economic relations among individuals (see pages 38–40); similarly, we hope that it may become the customary manner of determining relations among nations. Such is in fact the present tendency. *Commercial treaties*, by which nations peacefully and carefully reach some definite and permanent agreement with regard to their economic relations to one another, seem the wisest policy that an enlightened nation can adopt. They place reasonable limitations upon countries that are disposed to make exaggerated claims. They give rise to a reciprocity of interests, and lay the foundation of friendliness and solidarity among the contracting nations.[1]

Commercial treaties offer the following advantages: —

(1) They guarantee the *stability of tariffs* during a definite period, generally ten years. This circumstance is very favorable to the development of commerce. It is of course true, on the other hand, that they bind the contracting nations and thus deprive them of the privilege of changing their customs duties according to varying circumstances; but this immutability should be regarded as a good, not as an evil.

(2) They permit of a *differentiation of duties*, according to the country with which the treaty is made, whereas customs duties otherwise are necessarily uniform and special provision cannot be made for differences in the economic conditions of various nations. It is true that this advantage is practically almost done away with by the so-called "most favored nation clause," which is usually inserted in all treaties, and by virtue of which any concession made by one nation to

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[1] The commercial treaties recently made by Germany, Austria, Switzerland, and Belgium have founded a sort of Central European customs union. The United States has tried — thus far without much success — to form a customs union that shall include all the American republics.

another is immediately extended *ipso facto* to all other nations having previously made treaties with the contracting nation.

(3) They lead gradually to a more liberal régime and to the abolition or lowering of barriers between nations, because, with every renewal of a commercial treaty, the contracting parties wrest concessions from each other; whereas the protective system, once firmly established in a country, tends to grow more radical and more general, for the reason that all classes of the community claim a share of the spoils.

There can be no doubt that, in many European countries, the recent rapid increase in the amount of goods imported from America has given rise to a movement in favor of protective measures against American products. Particularly in Continental Europe this tendency appears to be growing stronger, and may culminate in measures that will seriously restrict American exportation to those countries. The adoption of commercial treaties upon the basis of mutual tariff concessions, however, will doubtless be found the most successful method of preserving and extending the European markets conquered by American goods.

CHAPTER V — CREDIT

I. Credit is only an Extension of Exchange

CREDIT is protracted exchange, that is to say, exchange which is not complete until a certain period of time has elapsed. Introduce the element of time into exchange, and it becomes *credit.* Hence credit may be defined as *the exchange of present wealth for future wealth.*

For example: I sell you some wool, but you have no money with which to pay me, *i.e.* no present wealth to give me in exchange for what you have received. This does not preclude exchange between us. All that you will have to do is to give me, in exchange, part of the wealth which you intend to create with the wool, — say an equivalent value in cloth when you have manufactured it of the wool I gave you.

In this example the underlying exchange is perfectly obvious. The transaction is a sale, differing from ordinary sales only in the circumstance that payment is not made immediately but at some future date. Now this difference, which appears to have little significance, has very important consequences. It is, indeed, no small matter to introduce the element of futurity into the domain of contracts.

There is another kind of transaction in which the underlying fact of exchange is less perceptible, Suppose that, instead of selling you the wool, I *lend* it to you; that is to say, its transfer is conditioned upon the return of some equivalent when you have used the wool to make cloth. Evidently, you will not return to me the same wool that I lent you, for you have employed it to make the cloth. You can, however, give me an equal *value* when you have sold the cloth. Here again, although there has really been no sale on my part, it is obvious that present goods have been exchanged for future goods.

The operations just described—*sale on condition of payment at some future date*, and *loan*—are the two essential forms of credit.

Other things being equal, present goods are always more desirable than future goods. Goods for which we must wait have less value than those already in our possession. When, therefore, present wealth is exchanged for future wealth, the equilibrium of exchange must be established by requiring the borrower to give back a somewhat higher value. When payment is deferred the price of goods is likely to be higher than when cash is paid; the difference between the two prices is commonly called *discount*. Wholesale business houses generally give discounts for the immediate payment of bills, or for their payment in shorter periods than are customarily allowed. The same principle explains why in the case of loans the sum returned is always somewhat larger than the sum loaned, the difference being called *interest*.[1]

Credit involves the following characteristics:—(1) The *consumption* of the object sold or loaned; (2) the *expectation* of some new object of value to take its place. The man who lets a house or a farm knows perfectly well that the house or farm remains the same whether he or a tenant occupies it, and that it will ultimately be restored to him. But the man who yields an object designed for consumption knows that he loses all control over the object. He knows that it will be destroyed; that, in fact, is its purpose. Wheat, for instance, must be ground, to produce flour; it must be planted, to give a new crop. Even money must be spent or invested in some way before it can produce additional money.

The destruction of wealth, it should be noted, for the purpose of creating future wealth, is always a problematical operation for both lender and borrower.

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[1] Consult Boehm-Bawerk, "Capital and Interest." In this section we have nothing to do with the question whether discount and interest are legitimate, nor with the question whether they can be done away with. These questions come under Distribution.

Consider first the *lender*. He always incurs more or less risk. To be sure, he expects to receive more than an equivalent amount of *future* wealth. But this anticipated wealth *does not yet exist;* before he can receive it, it has to be produced, and whatever is future is *ipso facto* uncertain. For this reason legislators have sought to devise means for protecting the lender against loss; and the devices and precautions which they have introduced from time to time constitute one of the most important branches of civil law: guaranty, liability, mortgages, etc. Notwithstanding legal protection, the lender always must have more or less confidence in the borrower. This is why the term "credit" is applied to this particular kind of loan. Credit, as the word itself indicates (*credo*, I believe), means faith.

Consider now the *borrower*. Unlike the tenant of a house or a farm, the borrower is not bound to preserve intact the object lent to him, and to return it to the owner at the expiration of a fixed period. In using it, that is to say in destroying it, he must create an equivalent value with which he can meet his debt when it is due. He must therefore be extremely careful *to employ this wealth productively*. If he consumes it unproductively (*e.g.* for personal expenses), or even if he fails to reproduce an amount of wealth at least equal in value to that which he borrowed, he suffers a loss. A list of the unfortunate borrowers of all nations and of all epochs, whose ruin was due largely to the misuse of credit, would be interminable. Credit, therefore, is an infinitely more dangerous productive device than those we have heretofore considered. It is likely to render efficient service, in production, only in communities which have reached a high stage of industrial education and development.

II. The History of Credit

Of all systems of economic organization, that based on credit is the most recent. In fact, its function is too complex to permit of its introduction among primitive peoples. At present it presupposes the accumulation of capital in the form of money, although among primitive peoples credit appears to have existed in the custom of lending cattle. It may, indeed, be held that loans played an important part in Antiquity and in the Middle Ages. This is true. But loans were then regarded simply as a kind of assistance given by members of the same family or of the same social class to each other in cases of exceptional need, or as a method of exploiting foreigners and members of other social classes.[1] Credit was rarely employed as a method of encouraging production. Hence the opprobrium which attached to the loan of money or goods, and the riots which were frequently caused by debts of this nature. In the loan contracts of the Middle Ages the church fathers endeavored to distinguish those cases in which loans aided production (and for which they admitted that interest was legitimate) from those in which it was clearly unproductive (in which cases they called interest usury and forbade it). They did not reason so poorly as some critics have supposed, inasmuch as the measures that they adopted were dictated by the needs of the epoch.

As a means of facilitating production, credit arose only when it became possible to regard future wealth, — which is the true object of credit, — as commercially transferable from one person to another. This important step was accomplished by the invention of *negotiable paper*, — credit instruments that may be bought and sold in the market in much the same way that other goods are. The use of negotiable paper dates probably from the thirteenth century.[2]

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[1] "Unto a stranger thou mayest lend upon usury; but unto thy brother thou shalt not lend upon usury" (Deuteronomy xxiii. 20).

[2] Professor Hildebrand, one of the founders of the German historical school of economists, made credit the basis of his division of economic evolu-

At the outset, credit instruments were not regarded as wealth, because they were neither consumable nor at all like material objects. A credit instrument was considered as a purely personal bond between creditor and debtor. In the significant words of the commentators on classical Roman law, the obligation adhered to the body or person of the debtor, — *ossibus haeret.* If the debtor failed to repay, the creditor could not seize his goods ; there was nothing which he could seize but the person of the debtor. Roman law permitted the creditor to imprison the debtor or even to cut him in pieces, — as the law of the Twelve Tables puts it, *in partes secanto.* Under such circumstances as these, the conception of transferable credit claims could not arise.

But it was not long before Roman jurists took a great step forward ; credits or claims came to be regarded as wealth (*bona*), and by means of ingenious devices they were even made transferable (*e.g.* by what was called *novatio* and *litiscontestatio*).[1] The transfer of credits, however, continued to

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tion. The first period was that of *natural economy*, in which there was no exchange or in which exchange took the form of barter ; the goods that were produced were consumed by the producers, and there was little or no change in the ownership of wealth. The second was that of *money economy*, marked by the introduction of sale and purchase. Exchange, which played an important part in the economic life of the community, was facilitated by the use of money. The third period is that of *credit economy*, characterized by the custom of deferred payment, by loans, and by other forms of protracted exchange transactions.

This threefold division of economic evolution into *Naturwirthschaft*, *Geldwirthschaft*, and *Creditwirthschaft* must not be supposed to imply that at any time one of these systems prevailed alone. It is probable that barter will never entirely disappear ; indeed, we have shown that in many respects we have returned to what is practically a system of barter, *e.g.* in international trade. Credit, on the other hand, existed in an embryonic form among primitive tribes, where the custom prevailed of lending food or cattle. The above division, however, is true in the sense that certain periods have been characterized by the predominance of one system.

Credit economy is only in its beginnings. There may come a time when it will do away entirely with money. (See page 290.)

[1] Credit has likewise undergone another transformation which we can only indicate here because it belongs to the domain of law rather than that

be more difficult than the transfer of ordinary material goods, and even to-day, according to the French Civil Code (which may be regarded as the heir and outcome of the Roman legal system), the transfer of credit instruments involves formalities of a somewhat complicated nature, — especially the notification of the debtor.

But business law has always progressed more rapidly than civil law and served as a pioneer of legal evolution. Thus, in the Middle Ages, business law — the "law merchant" — devised admirable means of representing credit claims by certificates, transferable simply by indorsement. The most important kinds of negotiable credit instruments ("commercial paper") are *bills of exchange* and *promissory notes*.[1]

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of economics. It has lost the character of an exclusively *personal* matter, which it possessed at the outset, and become *real*, that is to say, it is now based upon some material security or lien, or at least upon the property of the debtor.

Nevertheless, there appears here to be another example of that strange spiral evolution of which we have already mentioned several examples (page 287, note), inasmuch as the tendency now is to revert to personal credit, *i.e.* credit based solely on faith, — which is the true and highest significance of the term. Examples of this are "lines of credit," coöperative credit societies, etc.

[1] In the case of a *bill of exchange* the creditor who has sold goods makes out a paper to this effect: —

NEW YORK, March 1, 1903.

To William Wilson [the debtor], *Chicago, Illinois.*

At sight of this bill, pay to John Jones, or order, One Hundred Dollars, for value received.

(*Signed*) HENRY BROWN [the creditor].

Brown will sell this bill to Jones, who, if he chooses, may transfer it to any one else by indorsing it.

The following is the form of a promissory note, made out by a purchaser of goods, or a borrower, to his creditor: —

PHILADELPHIA, March 1, 1903.

Three months after date I promise to pay, to Henry White [the creditor], *or order, the sum of Five Hundred Dollars, with interest at five per cent, for value received.*

(*Signed*) PHILIP JOHNSON [the debtor].

Promissory notes are written promises to pay a sum of money upon demand or at some specified time. These notes may be transferred at will from one person to another, and circulate almost as freely as money. The payee or holder of the note may, by writing an order on the back and signing his name, make the note payable to a third person. By indorsing the note in this manner, any holder may use it as a means of paying his debts. When the final holder presents it for payment, it may have effected a number of exchanges.

Transferability by indorsement is a marvellous simplification; but indorsement is nevertheless a formality, and one of no mean importance, since it involves the legal responsibility of all those who sign the paper. Greater simplicity and wider use is attained by suppressing the need for a signature, and creating credit instruments that may be passed from hand to hand as easily as money (*e.g.* notes payable to the *bearer*).

With the accomplishment of this step we reach the latest stage in the evolution of credit. Henceforward vast amounts of wealth — not fictitious wealth, but future wealth, which is something quite different — are added to the sum total of present wealth, and circulate in the form of negotiable paper, or of paper payable to the bearer. These credit instruments of various kinds are now used to an extent that but a few years ago would have been almost inconceivable, and have given rise to a class of persons called bankers, whose business it is to deal in these instruments.

An investigation made some years ago by the Comptroller of the Currency, concerning the use of various kinds of money and the use of checks, drafts, and other credit instruments in the national banks of the United States, dis-

A promissory note is simply a promise to pay made by a debtor to his creditor, but which the latter can transfer to other persons. A bill of exchange (also called a *draft*) is somewhat more complicated; it is an order addressed by the creditor to his debtor instructing him to pay a certain sum to some third person, designated in the bill, or his order.

closed that less than 10 per cent of the receipts (in 1892) were in cash; in the larger cities, such as New York, metallic money represented only 2 or 3 per cent of the bank receipts.

But, it may be asked, what great advantage is there in representing credit by negotiable paper?

Although it is exceedingly desirable for a borrower or a person that buys on credit to have some capital at his disposal during a given period, it is not always convenient for the lender or the seller to be obliged, during the same period, to do without the money that is due him. A manufacturer daily finds it necessary to make purchases and to pay wages; his business cannot continue unless his supply of capital is replenished from day to day by the sale of his manufactures. Suppose, however, that his manufactures are sold on credit, *i.e.* not for immediate, but for future, payment; in this event it would seem impossible for him to continue his business.

What, in this case, shall he do? It would appear that the same capital cannot be at the disposal of two persons *at the same time*, — at the disposal of the lender as well as the borrower. Yet this apparent impossibility is accomplished by means of negotiable paper. In exchange for the capital which really belongs to him, but which he has for a time relinquished, the lender, or the dealer who sells on credit, receives an acknowledgment in the form of a bill of exchange or a promissory note or some other negotiable or transferable paper; this paper represents a value which, like all other values, can be bought and sold. Should the lender want his money, nothing is more simple than to get it; all he has to do is to sell this paper, *i.e.* in the language of bankers, *negotiate* it.[1]

III. Can Credit create Capital?

Credit has acquired such importance in modern society that we are tempted to ascribe miraculous powers to it.

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[1] The expression *buying and selling exchange* is used frequently, and has reference to dealings in bills of exchange.

Speaking constantly of great fortunes founded on credit, and recognizing that the most extensive enterprises of modern industrial life are built upon a basis of credit, we are easily persuaded that credit is a factor of production, and that it can create wealth quite as well as land or labor.

But this is an illusion. Credit is not a *factor* or agent of production. It is a particular *method* of production, — which is quite a different matter, — just like exchange and the division of labor. It consists, as we have said, of the transfer of wealth or capital from one person to another. But to transfer is not to create. Credit can no more create wealth than exchange can create commodities. As John Stuart Mill has neatly put it, "Credit is simply permission to use the capital of others."

What gives rise to the misconception which we are now discussing is the existence of credit instruments. We have seen that loaned capital is represented by an equal value of negotiable paper held by the lender. Hence it appears as though the act of lending *doubles the amount of capital.* The sum of $1000 which I have lent you, and your note for $1000 which I now have in my possession in place of the money, — do not these two make a total of $2000?

From the subjective or individual point of view the note is, in fact, capital; it is capital for me, but not for the nation as a whole. For it is evident that I cannot negotiate the paper until some one will give me money or goods in exchange for it. The note is therefore not capital *per se*, but simply affords me the *possibility of obtaining other capital in lieu of that which I have relinquished.* It is obvious, moreover, that whatever may be the use to which I want to devote the value represented by the note, — whether I shall use it to pay my living expenses or use it for production, — I can do this only by converting it into those articles of consumption or instruments of production which are offered for sale. It is not by means of pieces of paper that I shall support life or carry on production, but with the aid of whatever tangible, actual wealth I can procure in exchange for this paper.[1]

Although credit cannot be called productive in the strict sense of creating capital, it renders eminent services to production[2] by enabling us to *use existing capital to the best possible advantage.*

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[1] Mr. Macleod has acquired some distinction as an advocate of the theory that credit instruments are real wealth, true capital. He is, it must be admitted, logical in his reasoning; for he defines wealth as "everything that has exchange value." Credit instruments unquestionably possess exchange value, and would therefore fall under the head of wealth. But his definition is wrong. If every credit instrument really constituted wealth, it would be possible to double the wealth of any community by simply having each citizen lend his estate to his neighbor in exchange for a note.

Mr. Macleod maintains that these instruments at least represent *future wealth.* This is true, and exactly what we have said; but the very fact that they are *future wealth* makes it illegitimate to count them as *existing wealth.* When they have become present wealth, they will be counted. Until then there will always be this important difference between present and future wealth: the former *exists,* whereas the latter does *not exist.* Men live and produce by means of present wealth, not by means of anticipated wealth. To reckon future wealth as part of a nation's riches would be like taking a census by adding to the present population those persons who will be born twenty years hence, — on the ground that they are future members of the community.

Professor Leroy-Beaulieu remarks that Macleod's theory is like maintaining that whenever a person is reflected in a mirror, there are two persons instead of one.

[2] We speak advisedly of its services to "production," because credit for consumption ordinarily has disastrous consequences. Credit for consumption, however, may be admitted as rendering some services, such as: (*a*) helping us to tide over difficult situations while awaiting a turn of fortune; (*b*) simplifying accounts and avoiding very frequent payments (for example, the daily purchase of bread "on credit" at the baker's).

Professor Leroy-Beaulieu, in his interesting discussion of credit (Vol. III, page 374, "Économie politique"), points out these three advantages: —

(1) The transfer of capital effected by credit ordinarily results in a better use of this capital by the borrower (and by society) than would have been made by the lender.

(2) By placing capital in the hands of those persons who are able to make a better use of it than those who accumulate it by saving, credit enables the former to give the latter, in return for the relinquishment of their funds, a share in the results of this better use of capital. Thus credit makes saving more advantageous and contributes to the growth of capital.

If capital could not be transferred from one person to another, and if everybody were reduced to the necessity of employing his own capital, and only his own capital, an enormous amount of wealth would remain unused. In all civilized societies there are many persons who cannot make use of their own capital, or, at least, cannot make the most profitable use of it. Among these persons are the following: —

(*a*) Those who have *too much* capital. As soon as a man's fortune exceeds a certain sum, it is no easy matter for him to make the best use of it by his own ability alone; usually, moreover, the possessor of a very large amount of capital is little disposed to take the necessary pains to make the most productive use of it.

(*b*) Those who have *not enough.* Laborers, farmers, and servants, who have saved small sums of money, would be at a loss how to employ these small savings productively. But when these savings are united they amount to millions, and permit of carrying on vast productive enterprises.

(*c*) Those who, by reason of their *age*, *sex*, or *occupation*, cannot themselves employ their capital in industrial enterprises. This is the case with minors, women, and persons who are engaged in the liberal professions, — lawyers, physicians, military men, clergymen, and government officials.

On the other hand there are people in the world — such as "captains of industry," inventors, agriculturists, even workmen — who could make excellent use of capital if they possessed it; unfortunately, they are sometimes entirely without it, or have but an insufficient quantity.

Now if, by means of credit, capital is transferred from those who can not or will not make the best use of it, to those who are capable of employing it productively, this is

(3) By substituting simpler methods of payment, and using more effective and cheaper kinds of capital than money, credit permits of transacting a vaster bulk of business with much less money. As money is a costly instrument of exchange, the economy of money permits a nation to increase its productive capital.

of great benefit for all persons concerned, and for the whole community. In every country there are millions of dollars which in this manner are withdrawn from mere sterile hoarding, or from unproductive consumption, and made productive by means of credit. It has been well said that credit transforms *latent* capital into *active* capital.[1]

In the following sections we shall consider the organization of credit, *i.e.* the institutions and arrangements by means of which credit is utilized.

IV. The Function of Banks

We have remarked that the exchange of commodities is almost impossible without the aid of certain intermediaries, called *merchants* or *traders*. In the same way, trade in credit would be next to impossible without the assistance of intermediaries called *bankers*.[2]

Bankers are like all other merchants. Ordinary merchants buy and sell goods; bankers deal in capital represented either by credit instruments or by money. The former buy in order to sell, and find their gain in buying as cheaply as possible and selling as dearly as possible. The latter borrow in order to lend, and find their gain in borrowing at as low a rate as possible and lending at as high a rate as possible. Borrowing and lending are the two fundamental transactions of all banking business. The sums which the banks borrow are usually obtained through *deposits*, and their loans are usually made in the form of

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[1] It may be said that credit performs the same part, with regard to capital, as that performed, with regard to wealth, by exchange. We have noted that exchange, by transferring wealth from one owner to another, does not create wealth, but makes it possible to utilize it better, and to make better use of productive labor.

Credit likewise permits the economy of a certain amount of metallic money. But we have already considered this function of credit, and we shall again speak of it in connection with bank notes.

[2] A bank has been tersely defined as "a manufactory of credit and a machine of exchange."

discount; they are, therefore, commonly called *banks of deposit and discount.*[1]

There is, however, a third transaction quite different from the other two, although fundamentally it constitutes a species of loan. We refer to the *issuing of notes.* This operation is not essential to banks; often it is an exceptional, privileged function, belonging only to certain banks known as *banks of issue.*[2]

Let us examine, in turn, each of these branches of the banking business.

V. Deposits

The banker's first task is to get capital from others. He can, of course, use his own capital or those larger sums which may be furnished by the association of capital, and which, in modern society, amount to hundreds of millions. But if the banker carries on his business only with his own private capital, or with that of a group of capitalists, his profits will be small and his services of little importance to society. We shall soon see the reason for this. The banker, therefore, must carry on his business with the money of the public, and for this reason is obliged to borrow it from the public.[1]

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[1] The history of banks is closely connected with the history of commerce since the Middle Ages. The creation of each great bank marks a new stage of commercial development. The first were those of the Italian cities, Venice (1400 ?) and Genoa (1407). Then commercial supremacy passed to Holland, and we come to the great and celebrated Bank of Amsterdam (1609), soon followed by those of Hamburg and Rotterdam. Finally, the creation of the Bank of England, in 1694, indicated that this nation was about to take the lead in commerce. The Bank of France was not founded until the beginning of the nineteenth century, although Law had founded a bank in 1716.

[2] Originally, bankers were simply money-changers. In London, during the seventeenth century, the goldsmiths took charge of money-changing. But whereas money-changers to-day have little to do except in frontier cities or great commercial centres, *i.e.* in such places as are frequented by foreigners, this was not the case in the Middle Ages. The innumerable kinds of money resulting from the right of feudal lords in some countries to coin it, and the frequency of clandestine debasement or counterfeiting (not infrequently due to the sovereign himself), made the business of these changers, who, for a premium, would furnish good money, a very important one.

In Holland, where international trade accumulated money from all countries, merchants found it advantageous to deposit their money at the Bank of Amsterdam, which guaranteed them the same weight of silver, *i.e.* the same value, as that deposited. Accounts were kept in an ideal money called *bank money.* For these reasons a claim of the bank was always worth 8 or 10 per cent more than the same sum in current money. (See Adam Smith's celebrated Chapter 3, Book IV, on this subject.)

The first banks did not lend money; they were banks of deposit, but not banks of discount. In 1658, however, the Bank of Sweden issued notes payable on demand.

How does the banker borrow this money from the public? Not after the fashion of governments or municipalities or business establishments, which (in the guise of stock, bonds, debentures, shares) borrow for long periods the capital that is offered for investment. Such loans as these involve the payment of too high a rate of interest. What the banker tries to get hold of is the circulating, floating capital which, in the form of money, people carry about in their pockets or keep in their safes. In all countries there is a large amount of capital of this sort,—capital that is not fixed, which does nothing, which produces nothing, and which is simply kept in readiness for the time when it shall be employed. The banker says to the public: "Intrust your idle funds to me until you have found some employment for them. I will spare you the trouble of taking care of them and will return them as soon as you shall have need of them, at your first requisition. To do this is to render you a service. I will, moreover, pay a low rate of interest for your money,—say 2 or 3 per cent.[2] This, at all events, is more than it produces for you while in your own possession. I will, finally, render you the additional service of being your treasurer, collecting your income, cashing your coupons, and paying your creditors in accordance with your instructions, — all of which will save you considerable inconvenience."

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[1] Some large banks never employ their own capital in their transactions; they invest it either in real estate or in stocks and bonds, which constitute a reserve or a guarantee for their patrons. This, for instance, is true of the Bank of France.

Almost all of the capital of the Bank of England consists of government debts.

[2] Banks that receive money on deposit often pay no interest at all for deposits, on the assumption that they render a sufficient service by storing the money safely. Such is the case for the Bank of England and the Bank of France, which, nevertheless, receive vast sums on deposit. Formerly, banks of deposit, such as those old banks which we have mentioned, required

Wherever these offers are heard and accepted by the public, bankers may thus obtain a large amount of capital on very easy terms by draining from circulation the coin which is scattered about the country. We have already observed that in England, for instance, it is customary for wealthy people not to keep any money in their homes, but to deposit it all with their bankers. The same is true to some extent in this country. Whenever a person has to pay a merchant or any other creditor, the latter is simply sent to the bank to receive payment upon presenting a check or written order which the debtor has detached from his check-book. This method of payment is now becoming universal.

VI. Discount

When this floating capital has been borrowed by the bank at a low rate, the next step is to turn it to account by lending it to the public.

How shall this be done? The banker cannot lend the money for long periods; it would be a mistake to purchase mortgages or to launch industrial enterprises. He must bear in mind that he holds this capital only as a trust, that is to say, on deposit; he may be obliged to refund it at a moment's notice. Consequently he can lend it only for short periods and employ it for short-time transactions that deprive him

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depositors to pay for the keeping of money, because they did not touch the funds in their keeping and hence made no profit on deposits.

But to-day all banks try to employ productively the money in their charge. Hence most of them grant a low rate of interest in order to attract deposits. They sometimes give a higher rate of interest when the depositor binds himself not to withdraw his money except after giving notice to that effect six months or a year or five years in advance.

of its control for only a little while. The deposits must be kept, so to speak, within easy reach.

Are there any loan transactions which fulfil these conditions?

There is one variety of transaction which complies with them admirably. When a merchant has sold goods on credit, as is customary in modern business, and happens to require money before the time for payment is reached, he turns to the banker. The latter will advance the sum that is due for the goods sold, minus a small amount which constitutes the banker's profit; thus the banker acquires the merchant's claim on his purchaser, *i.e.* his bill of exchange or the promissory note obtained from his debtor. The banker keeps this bill or note until the time when it falls due, whereupon he collects it of the debtor. In this manner the banker recovers the money which has been advanced.

This transaction is called *discounting*. It is a form of loan. For it is obvious that the banker who, in exchange for a bill of exchange for $1000, payable in three months, advances $985 to the merchant, and collects $1000 when the bill is due, has in reality lent money for a period of three months or less at the rate of 6 per cent or more. These loans are always for short periods. Bills of exchange negotiated by bankers are not only usually payable in three months at the outside, but it is generally not necessary to wait even that long before their collection. In the Bank of France, for instance, bills of exchange are kept, on the average, twenty-seven days before being collected. It is therefore only for a very short period that the banker loses possession of the money he has received on deposit, inasmuch as every dollar returns to the bank within a few weeks.

Hence it is apparent that so long as the demands for the return of deposits are scattered over a period of four weeks, the banker, thanks to the periodic return of the money advanced to borrowers, will always be able to meet all the demands that may be made upon him. It is improbable that the requests to refund deposits will be as frequent as this, at least under ordinary circumstances. It would therefore be difficult to find loan transactions better adapted to the needs of banks of deposit.

Nevertheless, it is evident that in periods of crisis the banker must incur considerable risk. If all the depositors should hurry to the bank on one and the same day and claim their money, the bank would surely be unable to meet their demands, because its money, or rather *their* money, is being used outside in the business world. It will of course soon be returned, but there is always this difference between the money borrowed by the bank and the money lent by it: the former is payable *on demand*, whereas the latter usually can be claimed only *after a certain period* has elapsed;[1] and there are times when this difference may lead to bankruptcy.

But is this problematical danger a sufficient reason for not permitting banks to make use of their deposits, and for obliging them to keep intact the money that is intrusted to them, after the manner of the old banks of Venice and Amsterdam? Certainly not. For if that were done, all parties concerned would be greatly inconvenienced and highly dissatisfied.

First, the depositors themselves would object; for it is clear that, if the bank is compelled to keep their money in its vaults without employing it, the bank could not possibly pay interest on deposits, but, on the contrary, would be compelled to require payment to cover the cost of keeping. Hence it is better for the depositors to run the risk of having to wait a few days for reimbursement, than to hoard their money at home unproductively, or to be obliged to pay for its safe-keeping.

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[1] In large commercial centres bankers frequently lend considerable sums on condition that they be returned *on demand*. The reserve of a bank consists of two elements: one representing the cash needed in the everyday transactions of its customers, and the other an amount retained as a means of safety and used to meet unforeseeable and irregular demands. This latter fund cannot be safely invested even in bills, unless it is very large, and the business of the bank's customers is of an unusually certain character. It is therefore put out on what are known as "call loans." (See W. A. Scott, "Money and Banking," New York, 1903.)

Society, too, would object; for the social utility of banks consists in combining scattered and unproductive capital (existing in the form of coin) and making it active and productive. This function evidently is impossible the moment that banks are unable to employ deposits.

Hence banks do not hesitate to make use of the sums confided to their charge. But in order to face any demands which may arise, they take care always to have a certain cash *reserve* on hand. It is impossible to establish *a priori* the ratio of deposits to the cash reserve, but it has been found by long experience that a reserve of from 15 to 25 per cent of the deposit is sufficient to meet all demands which depositors are likely to make at one time. (See the section on the Organization of Banks.) A bank's reserve should be larger whenever its credit is poor or whenever it has many large depositors; it should strengthen its reserve particularly during commercial crises and on the advent of new issues of government bonds, — that is to say, at such times when it can foresee that many depositors will be likely to want their money.

It must not be supposed, however, that all the bank deposits are in cash. The term *deposits* is applied indifferently to credit balances originating in deposits of money or to those having their origin in the discounting of notes, and may, therefore, be defined as the aggregate amounts standing to the credit of customers on the bank's books. When, for example, a business man wants a note discounted, he is, theoretically, entitled to receive cash at once. But if he asked for cash at once in full, the bank would not be likely to discount notes for him in the future. Usually, the business man does not require cash. What he wants is a certain amount of purchasing power in available form. The proceeds of the discounted note are simply placed to his credit to be drawn out by him at such times and in such amounts as convenience or necessity may dictate. The sum which he is thus at any time entitled to draw, so long as it stands to his credit, is said to be deposited in the bank. But the bank is reasonably sure that the total amounts drawn in a single day upon such accounts as these will form but a small fraction of its whole deposits.[1]

Discounting is not the sole manner in which banks may employ their funds. They also lend money in these ways: —

(*a*) By *making advances* on securities. When this is done, bankers are careful that the sum lent is sufficiently lower than the value of the security.

(*b*) By granting an *open credit* to their customers, who are thus entitled to withdraw more money than they have deposited. Obviously, this amounts to the same thing as lending them money. But as such loans — called *uncovered* loans or *overdrafts* — are exceedingly risky and are made practically without security, many banks refuse to transact them.[2]

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[1] See C. F. Dunbar, "The Theory and History of Banking," and W. A. Scott, "Money and Banking." Claims to deposits and national bank notes are usually designated as "bank currency" and constitute the greater part of the total volume of currency. On July 1, 1900, there were in circulation over $300,000,000 national bank notes, and the bank deposits amounted to over $4,000,000,000. All other forms of currency combined amounted to only $1,762,000,000.

[2] A multitude of technical terms are employed in the banking business. Some of these deserve brief explanations.

Promissory notes are sometimes made out for future or fictitious transactions, and do not have their origin in any business transaction already concluded. In this case they are called *accommodation bills.*

Some banks, especially in Scotland, authorize persons to draw a maximum amount of money from the bank within a given time, and returnable within a given time, interest to be paid only for the amount actually drawn and the time it is kept out. These are loans on personal security, never less than two names being required, and are called *cash credits.*

Bills of exchange or drafts are sometimes accompanied by *bills of lading*, warehouse receipts, stocks, or bonds, which are specific titles to property, the bank having a lien on the property until the bill is paid. These are

VII. The Issue of Bank Notes

The interest of a banker, like that of every other business man, is to increase the extent of his transactions so far as possible. Twice as much business means twice as much profit. But *how* can a banker extend the scope of his transactions?

If it were possible for him really to create capital, in the form of coin, instead of being obliged to wait patiently until the public is willing to bring it to him, this would manifestly be an exceedingly desirable achievement so far as he is concerned. And bankers have indeed conceived the ingenious idea of actually creating the capital they need, by issuing simple promises to pay, *i.e.* by issuing *bank notes;* and experience has demonstrated that the process is perfectly practicable.[1] It has succeeded admirably.

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exceptionally secure bills and command a lower rate of interest than is usually paid.

Letters of credit are instruments of writing issued by a bank, authorizing the holder to draw upon the issuing bank or upon some affiliated institution, at sight or otherwise, and within a definite period, a sum or sums of money not exceeding a specified aggregate amount. The letter always indicates how much has been drawn, and how much credit remains unexhausted. It also bears the names of the banks or persons in various parts of the world who will honor any requests made by the owner—up to the total amount of the letter. A large part of the foreign purchases made by merchants is effected through bills of exchange drawn under letters of credit. These letters are also much used by tourists to pay their travelling expenses. (See Horace White, "Money and Banking.")

[1] The invention of bank notes is attributed to Palmstruch, the founder of the Bank of Stockholm (1656).

The early bankers of Italy and Amsterdam, and the London goldsmiths, issued notes in the seventeenth century; but these notes represented simply the money which they had in their vaults,—they were merely receipts for deposits and not really bank notes.

As the deposit business of bankers and goldsmiths grew, and the quantity of notes called for by depositors increased, it became more convenient to print blank forms, to be filled out with the names of the depositors and of the amounts due them. Still later notes were printed for round sums,—as, for example, five or ten pounds,—which could be handed in quantities to the

In exchange for the negotiable paper which is presented for discount, the banks, instead of paying in money, give their notes. That the public accepts this arrangement may cause some surprise. Here, for example, is a business man who comes to the bank to "sell" a bill of exchange for $1000, and in return for it he receives other credit instruments, namely, bank-notes for the same sum minus the discount. "What use is this to me?" he may inquire. "I want money, not instruments of credit; else I might just as well have kept the bill of exchange with which I came." But let him reflect a moment. Although the bank note is only an instrument of credit, like a bill of exchange or a promissory note, yet it represents a far more convenient kind of credit claim. It is, in fact, superior to most credit papers for these reasons: —

(1) It is *transferable to bearer*, just like coin, whereas a bill of exchange is subject to the formality and the responsibilities of indorsement.

(2) It is *payable at sight*, *i.e.* at any time whatever, whereas commercial paper is payable only at a specified date.

(3) It is *always payable on demand*, whereas negotiable paper may lose its value at the expiration of a certain period.

(4) A bank note is always *for a round sum*, such as is customary in the prevailing monetary system, — like $10, $20, or $100, — whereas commercial paper, being the result of commercial transactions, often has a fractional value.

persons entitled to receive them; and these were made payable to bearer, or to order, according to the wish of the depositor. When the business of discounting commercial paper was added to the goldsmith's vocation, the notes were issued, if desired, to the persons getting the discounts.

Thus the right to issue such notes became recognized as a right at common law. Anybody could issue them and put them in circulation, if people were willing to take them. Certain charters granted to banks in Philadelphia and New York before the adoption of the federal Constitution contained no mention of circulating notes, since the right to issue them existed without legislative authorization. The Bank of New York issued circulating notes seven years before it received a charter. (See Horace White, "Money and Banking," Boston, 1902.)

(5) It is issued and *signed by a well known institution*, the name of which is familiar to the public, whereas the signers of a bill of exchange or a promissory note are often known only to the persons that have business relations with them.[1]

(6) Finally, *it yields no interest*, and is in this respect like a coin, whereas all other credit paper yields interest. This must not be regarded as a sign of inferiority, — far from it, — but as making the bank note more closely similar to money, inasmuch as its value always remains the same and is not subject to variations according to the proximity or remoteness of the day upon which it falls due.

The above considerations lead the public to accept a bank note quite as readily as metallic money; bank notes are *fiduciary paper money*. (See page 259.)

It goes without saying that banks derive great benefit from the emission of notes. It provides them, on the one hand, with the resources necessary for extending their transactions, — within limits dictated by prudence and which we shall examine presently. On the other hand, the capital which they obtain by means of notes is far more profitable to them than what they receive in the form of deposits. Deposits, as we have seen, generally cost the banks 2 or 3 per cent interest, whereas bank notes cost merely the expense of manufacture, which is insignificant.

But we must not conceal the fact that although this transaction may give splendid returns to the bankers, it may also give rise to serious dangers. The sum total of bank notes in circulation, which may at any time be presented for reimbursement in coin, represents a debt that is payable on demand, precisely like deposits. The bank, consequently, is exposed to a twofold peril: it may be called upon at any time to refund its deposits and to cash its notes.

The necessity of a cash reserve exists even when the bank has to meet only the demand for its deposits; it is still more imperative when the bank adds the debt resulting from its circulation of notes to that which results from its deposits. Hence we can understand why the law of several countries obliges banks of issue always to keep a certain reserve.[1]

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[1] The discount of commercial paper by the banks which give their notes in return for this paper has been aptly defined as "swapping well known credit for less known credit."

Unfortunately, as the money which lies unused in vaults gives no returns, the self-interest of the banks prompts them to reduce their reserves to a minimum; and it is difficult for them to resist this temptation.

VIII. Differences between Bank Notes and Paper Money

So closely do bank notes and paper money resemble each other that the public scarcely understands the distinction. Both of them take the place of money. In France and in England, bank notes are even legal tender. Yet bank notes differ from paper money issued by the government, and are superior to it, because of three characteristics: —

(1) It is a matter of principle that bank notes should always be *convertible*, *i.e.* payable in specie at the will of the holder; whereas paper money is not. The latter, to be sure, has the appearance of a promise to pay a certain sum of money, and as a matter of fact the holder may entertain the hope that some day the government, when it is better off financially, will exchange the paper for coin. Since 1879, our own greenbacks have been regarded as convertible, although the government would find it impossible to redeem them all at once. Yet the question when the government will convert its paper money into coin does not greatly concern those who receive it, for they have no intention of keeping it. (See page 261.)

(2) Bank notes are issued *in the course of commercial transactions*, and only to the extent required by these transactions; whereas the issue of paper money by the gov-

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[1] In Germany and in Belgium the law fixes the ratio at one-third of the amount of notes in circulation.

ernment is for the purpose of meeting its expenses, and has no other limits than the financial necessities of the moment.

(3) As the name indicates, bank notes are *issued by a bank*, *i.e.* by a corporation whose principal object is to carry on business and whose principal care is to safeguard its credit ; whereas paper money is always issued by a government.

For these reasons bank notes should not be confounded with paper money. It may happen, however, that bank notes approach very closely to paper money by losing one or more of the characteristics mentioned above.

(A) It is possible, first of all, for bank notes to acquire *forced circulation*, that is to say, to cease, for a time, to be convertible in money. This has often happened, during crises, to the notes of nearly all the great banks of the world.[1]

Even in this case there still remain, as we have seen, two other differences between bank notes and paper money, the more important of which is this: the quantity issued is neither unlimited nor fixed arbitrarily, but is always determined by the actual necessities of business. This is an excellent guarantee against excessive issues.

(B) It may happen, however, that bank notes not only acquire forced circulation, but that, instead of being put into circulation in the course of commercial transactions, they are issued merely for making loans to the government and enabling it to pay its expenses.

In such a case, usually, the government which needs money says to the bank, "Make a few score million dollars' worth of notes, lend them to me, and I will protect you from loss by forcing their circulation."[1]

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[1] We must be careful not to confound *legal tender* with *forced circulation*. A note is legal tender when creditors or merchants cannot refuse to accept it in payment for debts or goods. A note has forced circulation when the holder cannot convert it, *i.e.* cannot exchange it at the bank for coin. It may happen that bank money is not legal tender, and yet acquires forced circulation because creditors are practically obliged to receive it.

In this event, the second guarantee likewise disappears. The issue of notes then has no other limit than the needs of the government, and under such circumstances we must admit that bank notes are entirely like paper money.

Yet even in this case the third guarantee still subsists, namely, the definite identity of the corporation issuing the notes. This of itself is still sufficient to make bank notes much less subject to depreciation than paper money. So thoroughly has experience proved this, that many governments do not now exercise the right to issue money directly, but have recourse to the intermediary services of banks. The public takes it for granted that banks will oppose the issue of excessive quantities of notes, even though the government should desire it; for the issue of too large a quantity of notes may ruin a bank. Hence the public believes, — and unfortunately its belief is not without foundation, — that a private corporation can and will take care of its own interests much better than the government looks after the interests of the general public.

IX. The Rate of Exchange

The portfolios of all great banking institutions, especially of those which transact business with foreign countries, contain quantities of bills of exchange payable in various parts of the world. These represent goods worth many millions of dollars, and constitute the staple of a very active and important business. They are designated as "paper on London," "paper on Paris," etc., according to the place at which they are made payable.

The bankers who deal in them are obviously nothing but middlemen, commercial intermediaries. Hence we must inquire: From whom is this commodity, called commercial paper, purchased, and to whom is it sold?

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[1] This is just what took place in France during the Franco-Prussian War in 1870. The government repeatedly borrowed from the Bank of France, until the total sum reached 1,470,000,000 francs. But in order to do this successfully it was first necessary to give the notes forced circulation.

First of all, Where do they get it? They buy it of persons who produce it, of all those who are creditors of foreigners, and especially from *American merchants or producers who have sold goods abroad*, and who, as a result of their sales abroad, have drawn bills of exchange on their debtors in London, Paris, or Berlin. Should it happen that the American creditor needs money before the bill falls due, or simply because he finds it inconvenient to send the bill abroad for collection, he will sell the bill to his banker; that is to say, he will have his banker *discount* it.

To whom do the bankers sell these bills? To the many persons who are in quest of them. Bills of exchange are eagerly sought by all those who have payments to make in foreign countries, particularly by *American merchants or consumers who have purchased goods abroad*. If the American purchaser, for instance, cannot induce his English creditor to draw a bill of exchange payable in this country, he is obliged to send abroad to the home of his creditor the precise amount due in pounds, shillings, and pence. To do this is exceedingly inconvenient. But if the purchaser can find bills of exchange payable at the place where his creditor lives, he thus has a more convenient and less expensive method of payment. (See page 282.)

It would appear that this commercial paper should be sold ("negotiated") for a price that is equal to the sum of money which it represents. Thus a bill of exchange for $100 ought to be worth $100, — no more and no less. Yet this is not the case. It goes without saying that the degree of confidence which can be placed in the debtor, and the period of time which must elapse before the bill is due, affect the value of the bill. But aside from these self-evident causes of fluctuation, even though the bill is perfectly reliable and payable at sight, still its value, like the value of any other commodity, varies from day to day according to changes in the demand and the supply. These variations constitute what is called the *rate of exchange*, and are stated in the newspapers as regularly as the stock quotations.

We can readily understand what is meant by demand and supply as applied to bills of exchange. Let us suppose that our *credits* abroad, that is to say our claims on foreign countries due to exports or other causes, amount to $300,000,000. Let us further suppose that our *debits* abroad, that is to say the claims which foreign countries have against us because of our imports or other causes, amount to $400,000,000. In this case it is certain that there is not enough commercial paper for all those who want it, inasmuch as the total supply does not exceed $300,000,000, and the demand amounts to $400,000,000. Hence all those who require bills of exchange to pay their debts bid against each other, and foreign bills of exchange rise in value; that is to say, a bill for $1000, payable at Berlin or Paris, sells not for $1000 but perhaps for $1002 or for $1005. Such paper is, as the term goes, *above par; it rises to a premium.*

Conversely, when the claims of the United States against foreign countries amount to $400,000,000, whereas the debts we owe abroad amount to only $300,000,000, it is certain that paper is superabundant, as there is $400,000,000 of it for sale, and the payment of our debts requires only $300,000,000. Many bills therefore find no purchasers and can be utilized only by sending them abroad for collection. Hence bankers strive to dispose of them by selling them at a price somewhat lower than their face value. Thus a bill for $1000 on Paris sells perhaps for $995; *i.e.* it falls *below par.*

Whenever in any country paper payable abroad is quoted *above par*, the rate of exchange is said to be *unfavorable* to that country. What does this expression mean? Does it signify that the rate of exchange is unfavorable to those that buy exchange? This may be true; but if the expression meant simply this, would it not be necessary to add the converse statement, that the rate is *favorable* to those that sell exchange? What the term really means is that under these conditions the rate of exchange shows that the claims which this country has against foreign countries are not sufficient to counterbalance our debts to foreign countries, and that consequently we are obliged to send a certain quantity of money abroad to balance accounts. The rise of the rate of exchange, otherwise called dearness of paper payable abroad, is an infallible premonitory sign of the *exportation of coin*, for which reason we speak, in this case, of an "unfavorable rate of exchange." Conversely, whenever in this country foreign paper is quoted *below par*, we say that the rate of exchange is favorable. The process of reasoning is in this case precisely similar; a fall in the price of foreign exchange indicates that when all reckonings are made the balance of accounts will be in our favor and we must therefore expect the importation of coin.

To be sure, we must not attach too much importance to the expressions "favorable" and "unfavorable" rates of exchange. We know that for a nation to send money abroad or to receive it from other countries constitutes neither a great danger nor a great advantage, and that in any case it is not likely to last long. (See page 299.) But from the banker's point of view this situation is of very great importance; for if money must be sent abroad it will probably be taken from the banks. All the premonitory signs, therefore, are of capital importance to bankers, who always watch the rate of exchange intently, as the sailor who fears a storm watches the barometer. (See the section on A Rise in the Rate of Discount.)

We must observe, however, that variations in the price of exchange are confined to narrower limits than the price of any ordinary commodity. During normal periods (aside from the exceptions which we shall point out presently), the rate of exchange is not likely to be very much above or very much below par. This is due to two causes.

(1) Let us ask, first of all, why does the American business man who owes money abroad seek bills of exchange? Merely because he wants to save the expense of shipping coin and converting American money into foreign money. But it is obvious that if the premium which he is obliged to pay for foreign exchange is higher than the cost of shipping and converting coin, there will be no inducement for him to buy exchange. The merchant, moreover, who is a creditor of foreigners, and the banker who acts as his intermediary, seek to negotiate these bills of exchange only to avoid the trouble and expense of collecting them abroad and importing the coin. Rather than sell these bills at too low a price, the merchant or banker will surely adopt the latter method of obtaining his money.[1] Inasmuch, therefore, as the trade in foreign exchange has no other purpose than to economize the cost of shipping and changing money, we can readily understand that the traffic will cease whenever it becomes more expensive for the persons concerned than the direct shipment of coin, *i.e.* whenever the variations in the price of exchange, above or below par, exceed the cost of carriage. As the cost of carriage, including insurance, is very small, fluctuations in the rate of exchange will be confined within rather narrow limits.

(2) But these fluctuations are limited by another influence which is both more remote and more subtle, and to which we referred when discussing international trade. (See page 299.) Let us suppose that the price of foreign

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[1] A pound sterling, for instance, is worth $4.866+ in our gold coin, and a bill of exchange for a pound is therefore at par when it sells for this amount. The price cannot go up beyond about $4.89, which is called the "shipping-point." To send $4.86 to London, about 2¼ cents is charged for brokerage, insurance, and freight. Therefore the American debtor who wants to send a pound sterling to his creditor in London will not pay more for a paper title to a pound sterling than he would have to pay to send this amount abroad. When, on the other hand, the price of exchange falls, it cannot go below about $4.84; for if it does, gold will be imported. Hence $4.84 is called the "importing-point."

bills of exchange rises above par, and that the merchant who has drawn a bill for $1000 upon his foreign debtor can sell this bill for $1010. It is then evident that this premium of $10 is added to the profits of the transaction. Instead of making a profit, let us say, of 10 per cent, he gets 11 per cent. This increase in the earnings of all those who have sold goods abroad will lead a large number of dealers to follow their example; in other words, *a rise in the rate of exchange acts as a premium on exports.*[1]

But the increase of exports will give rise to an increase in the amount of bills of exchange, and consequently the value of these bills, according to the general law of demand and supply, will gradually fall until foreign exchange will be at par.

If, on the other hand, foreign exchange falls below par, it is easy to prove by means of the same process of reasoning that this fall in value will involve a loss to the merchants who have sold goods abroad. Consequently it will tend to reduce exports, and thus reduce the supply of foreign exchange until its value has again reached par.

All this is simply another manifestation of the ordinary workings of demand and supply, which tend always to bring the value of an object back to the point of equilibrium by increasing or curtailing production whenever its value varies to any great extent from a normal level.

We have said that in some exceptional cases the rate of exchange may fluctuate greatly, even to an unlimited extent. Such cases are the following: —

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[1] After the Franco-Prussian War of 1870 French exports increased very greatly during several years. Why? Because the enormous payments which the French were required to make to Germany led to a great rise in the price of foreign exchange, and the profit which exporters made by selling the bills which they drew on their foreign debtors was so great that they could afford to be satisfied with a small profit on the goods they sold, or even to sell them at a slight loss. The result was that French goods were sold abroad not so much because of the profit on the goods themselves as because exporters could thus draw bills of exchange on their foreign debtors and then sell these bills at a considerable gain.

(1) When a bill of exchange is payable at a place that is far distant or inaccessible, the cost of shipping money would be very considerable, and fluctuations in the rate of exchange are likely also to be considerable. It is evident that a dealer having payments to make at Khartoum or at one of the new towns that are springing up in the Klondike region, would regard himself as very fortunate in finding exchange payable at these places, even though he were obliged to pay a premium of 10 or 12 per cent. A creditor, on the other hand, who has drawn a bill payable at such a distant place, would be glad to negotiate it, even at 10 or 12 per cent below par.

(2) But it is especially when we have to do with a country whose money is depreciated, that fluctuations in the rate of exchange may become excessive and appear to have no limit at all. A bill of exchange on Rio Janeiro will bring only half its nominal value in London or Paris, because the Brazilian milreis, having a nominal value of 55 cents, is really worth only about 30 cents. Exchange payable in a depreciated money must necessarily suffer a depreciation equal to that of the money itself. Inversely, a bill of exchange on London or Paris brings, at Rio Janeiro, twice its nominal value in the money of the country. Even paper on Spain is worth only two-thirds of its nominal value.

Not only paper money may be depreciated, but metallic money as well, and its depreciation has the same effect on the rate of exchange. This is true to-day of silver money, which has lost half its value. Hence all claims on countries having a silver money system, such as those of the Orient and Asia, lose half their value. Conversely, all claims on nations having a gold standard (payable at London, for example) bring a high premium in countries having a silver standard. This state of affairs naturally complicates business relations.[1]

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[1] It is especially in this connection that we notice the effects of the rate of exchange on exports and imports, referred to in a previous section (page 299). The Hindoo farmer who sells his wheat for 3 shillings a bushel in London can

A study of the rate of exchange, therefore, enables us to understand the economic and monetary condition of a country, even though we may have no other knowledge to guide us. A careful observation of the rate of exchange will permit us to tell whether a country buys more than it sells or sells more than it buys, whether or not it has a depreciated money, and what is the extent of the depreciation.

(3) Finally, whenever the debtor finds it difficult to obtain gold, because his credit is limited, or because the banks make it hard for him to get bills discounted, or because the balance of trade (or, rather, of accounts) has drained the country of its gold, the rate of exchange may rise far above par. When, for example, France agreed to pay Germany a war indemnity of $1,000,000,000, France would have had some difficulty in securing enough gold to pay this enormous tribute; therefore the French government, in order to effect payment, sought everywhere for paper payable on Germany or even on London, in order to pay by way of arbitrage.[1] Hence the rate of exchange on Germany or even on London continued to be above par, not only in France, but elsewhere.

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negotiate his bill of exchange on London (payable in English gold money) for twice its value in Indian silver money. Conversely, the English manufacturer who sells cloth or cotton goods to the Indies is obliged to negotiate his bill on Bombay or Madras for half its nominal value, because it is payable in silver money. He can, to be sure, for this reason double the price of his goods, but this will lead to the loss of some of his customers.

[1] *Arbitrage* is a variety of exchange business somewhat more complicated than the ordinary traffic in bills of exchange.

We may describe it as follows: Paper on London is offered for sale in all commercial centres of the world. If it is too dear at New York, it may be purchased elsewhere at a lower price because of different commercial conditions. Arbitrage consists in buying exchange where it is cheap and selling it where it is dear. Arbitrage brokers facilitate international payment by extending the method of balancing accounts to all the nations of the earth. Dear commercial paper is the characteristic of countries having more debts than claims; if these countries attempted to settle their debts directly, they could not do so by simply balancing accounts. But if the bankers in such a country purchase commercial paper abroad at the places where an inverse condition of affairs prevails and where they can buy bills at a low price, this

X. A Rise in the Rate of Discount

Banks incur the risk of being obliged to redeem a great quantity of their notes whenever considerable amounts of money must be paid to foreign nations. As these payments cannot be effected in paper money or bank notes, but only in coin, people will turn to the banks to convert their notes into specie.

Suppose that as the result of a failure in the wheat crop, France is obliged to purchase 80,000,000 bushels of wheat from the United States. This means that the sum of about $60,000,000 must be sent to this country, and the banks of France may be sure that a great part, if not all, of this money will be withdrawn from their coffers. It is in the banks, as we have pointed out, that the floating capital of a nation accumulates, and people turn to the banks in time of need. This situation may become perilous for a bank if its reserve, and especially its gold reserve, is short. Fortunately, the banks are forewarned of this contingency by surer signs than the sailor obtains from the barometer, viz., by the rate of exchange. For if the rate of exchange becomes unfavorable, *i.e.* if foreign paper is negotiated above par, the bank may conclude that debtors who have payments to make abroad are too numerous, — much more numerous than those who will receive payments from abroad, — and that as debts and claims do not equal each other, it will be necessary to ship specie abroad to settle the difference. (See page 298.)[1]

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will permit of regulating the nation's accounts by means of reciprocal claims and debts.

If the method of payment by balancing accounts were confined to two nations, it would in many cases be practically impossible. The United States, for example, bought $143,000,000 worth of goods from the United Kingdom in 1901, and sold $631,000,000; on the other hand, we sold only $255,000 worth of goods to Switzerland, and bought $16,000,000 worth.

[1] Even without supposing a rise in the rate of exchange, the gradual increase in the amount of commercial paper, coinciding with a decline in the amount of the cash reserve, indicates a disquieting situation. From the observation of these two facts, M. Juglar has deduced a method of foretelling

When the danger has thus been perceived, the next step is for the bank to take the necessary precautions against it. To guard against too great cash payments, the bank must adopt the measures necessary either to *increase its reserve* or to *decrease the quantity of its notes* in circulation or of its other demand liabilities.[1] It is not entirely within the power of the bank to increase its reserve, but it does possess the power not to issue any more notes, that is, to make no more loans to the public, either in the form of advances or in the form of discounts. (We know that the bank puts its notes in circulation in these two ways.) It is obvious that this plan will accomplish the desired result. In the first place, the issue of notes being arrested, the quantity of notes in circulation will not increase. In the second place, the commercial bills docketed at the bank fall due from day to day, and thus bring back to the bank either more notes (thus diminishing the amount of notes in circulation) or more money (thus increasing the reserve).

The quantity of notes in circulation may be compared to a volume of water increased by an inlet pipe at one end, and gradually diminished by an outlet at the other, in such a manner that the level may be kept constantly at nearly the same point. The stream of notes[2] enters the business world by issues from the bank (through discounting commercial paper), and ultimately ceases to circulate by being returned to the bank in the form of collections and deposits. If, therefore, the bank closes the inlet pipe (that is to say,

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economic crises. There is danger of a crisis whenever the two "curves," represented by the amount of the cash reserve and by the amount of the credit instruments in a bank's possession, tend to diverge rapidly; the opposite is the case when these two curves tend to meet. Experience, as a rule, has confirmed this ingenious theory.

[1] We have already explained how discounting (page 373) gives rise to so-called deposits which, although not made in money, nevertheless constitute a demand liability of the bank.

[2] This argument apparently presupposes the free issue of notes. But, as the student will learn by reading the section on the Organization of Banks, the free and unlimited right of issue does not exist in this country.

if it ceases to issue any more notes) and leaves open the outlet (by continuing to collect paper that falls due, and to receive deposits), it is obvious that all notes may ultimately be withdrawn from circulation.[1]

Nevertheless, the complete cessation of all advances and of all discounting business would be too radical a measure. It would, in the first place, by suppressing credit, provoke a terrible crisis in the country. It would, in the second place, work great injury to the bank itself by putting an end to its transactions and hence to its profits. The bank may bring about the same result in a less violent manner by merely restricting the amount of its advances and its discounts. To accomplish this it is sufficient to *raise the rate of discount* or to be more particular about accepting commercial paper that is offered for discount. It may do the latter by refusing to buy bills that will not fall due soon, or the signature upon which does not seem to be sufficiently reliable.

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[1] Suppose, for example, that the bank has on hand $1,000,000 worth of commercial paper falling due at more or less distant dates. Suppose, further, that it has a cash reserve of $1,000,000, and that its outstanding circulation of notes amounts to $2,000,000.

Under such circumstances as these it is evident that if, as the result of a panic of some sort, all the holders of notes came to the bank and demanded their immediate redemption in specie, the bank would be unable to comply. But as soon as the bank has reason to fear such an eventuality, all that it will have to do is to cease discounting commercial paper. When this step has been taken, this is what will occur: The bills of exchange in the possession of the bank fall due from day to day, and all of its outstanding loans will return in ninety days at the outside, their average duration being much less than this. (See page 371.) When these loans have been paid, what will be the situation? The bank, having received $1,000,000 in payment of bills that have fallen due, will now have $2,000,000, and this is precisely the quantity of notes in circulation. There is therefore no cause for alarm. But if the commercial paper has not been paid for in specie, but in bank notes, it follows that there are only $1,000,000 in notes still outstanding, and as this is the extent of the reserve, there is in this case also no cause for alarm.

If, however, the bills of exchange, etc., have been collected half in specie and half in the notes of the bank, the bank will then have on hand $1,500,000 in specie, and the outstanding notes will equal the same amount. Hence, in this event too, there is nothing to be feared. Indeed, the same is true of any imaginable combination of circumstances, provided the amount of notes issued does not exceed the total capital of the bank.

These measures, to be sure, however moderately they may be applied, are not agreeable to the business public. They are all the more unpleasant because they occur at the very time when there is need of specie, and because they make it harder to obtain specie. Banks have sometimes even been accused of provoking crises, and the complaint may readily find credence. To increase the rate of discount is certainly a heroic remedy, but it is nevertheless the one remedy that suits the situation, and a prudent bank must not hesitate to resort to it to defend its reserve. Experience has amply demonstrated its efficiency.

This measure, moreover, is not only fortunate in its results for the bank, by warding off a threatened danger, but it has beneficial effects upon the country by favorably modifying its economic situation. Take a nation that is likely to be obliged to ship large amounts of specie abroad. A rise in the rate of discount, effected at the right time, reverses the economic situation by making the country a creditor of foreign nations for considerable sums, and thus gives rise to an influx of money from abroad, or at least prevents the outflow of a nation's own supply of money. Let us consider what really takes place in such a case as this.

The first result of a rise in the rate of discount is the *depreciation of all commercial paper*. A bill of exchange for $1000, which sold for $970 when the rate was 3 per cent, can be negotiated only for $930 when the rate has risen to 7 per cent; this is equivalent to a fall in value of more than 4 per cent.[1] Henceforward the bankers of all nations, especially so-called arbitrage brokers,[2] will purchase bills of exchange in this country, because they can be bought here at a low price; foreign nations will thus become our debtors to the extent of these purchases.

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[1] In order not to complicate the problem, we are assuming that bills are for a term of one year.

[2] See page 387

The second result is *the depreciation of all stock-exchange securities.* Every financier knows that the stock exchange is greatly interested in the rate of discount, and that a rise in the rate of discount almost always entails a fall in the value of stocks. Stock-exchange securities (especially those that are designated as *international*, because they are quoted on the principal stock-exchanges of the world), are frequently employed by merchants or at least by bankers in place of commercial paper, to pay their debts abroad.[1] Business men who cannot negotiate their commercial paper, or can do so only at a heavy loss, prefer to get money by selling whatever shares or stock securities they may possess. Hence these stocks tend to fall in value, just as commercial paper falls. But as a fall in the value of commercial paper results in an increased demand for it on the part of foreign bankers, similarly a decline in the value of stock-exchange securities gives rise to increased purchases of them by foreign capitalists; and thus the United States will become the creditor of foreign nations to the extent of these purchases.

Finally, if the rise in discount is great, and sufficiently lasting, it will cause a third result, viz., *a fall in the price of commodities.* We have just explained that business men who need money begin to obtain it by negotiating their commercial paper. When that resource fails or becomes too costly, they make use of whatever stock securities they possess; and, finally, if these various measures do not suffice, they must, in order to get money, sell the goods they have on hand. The natural consequence of this last measure is a general fall in prices. But this fall produces the same effects as those already considered, only on a larger scale: it stimulates purchases from abroad, increases the exportation of goods from this country, and thus makes the United States a creditor of foreign nations to the amount of these purchases.

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[1] If you have a payment to make in London, for example, the simplest plan is to obtain commercial paper payable in London; but you can also use Italian Debt coupons, Lombard Railway debentures, Ottoman Bank bonds, etc., which are also payable in London, and which consequently constitute another sort of international money that is frequently used for this purpose.

All these effects may be summed up by declaring that *a rise in the rate of discount creates an artificial scarcity of money, and thus involves a general decline in values.* This is undoubtedly an evil. But it also gives rise, as a consequence, to large purchases from abroad and to the importation of money. The ultimate effect is therefore beneficial, and is precisely the remedy best suited to the situation.

XI. Some Special Forms of Credit

§ 1. LAND CREDIT. One of the oldest and simplest forms of credit is that based on land as security, and which takes the form of a mortgage. From the standpoint of the lender it possesses an advantage that has always made it a desirable investment, namely, an almost absolute security, due to the fact that land cannot be destroyed or stolen. But aside from this advantage, such loans possess great disadvantages for both parties concerned. They burden the borrower with a comparatively high rate of interest,—seldom less than 5 per cent,—whereas the profits of farming generally bring a lower rate of return than this. Although the land on which a mortgage is based provides abundant security, the lender is unable to enforce payment very readily; his claim is not easily sold, and when the time for payment arrives, it is often necessary for him to adopt measures that are as unpleasant for him as for the unfortunate debtor, namely, seizure and ejection.

The last source of objection may be removed to some degree, so far as the lender is concerned, by making mortgages negotiable simply upon indorsement, like any other commercial credit; in some countries this system has been introduced and carefully elaborated. But it is extremely doubtful whether any system, no matter how ingenious, will ever enable the holder of a mortgage to negotiate it as easily as he could commercial paper; this would be contrary to the nature of things, for a mortgage will always to some extent partake of the immobility of the land upon which it is based.

A more ingenious system consists in founding banks of a special nature, sometimes designated in France and Germany as land-credit societies. These societies play the part of intermediaries between capitalists and landowners. They borrow money from the former in order to lend it to the latter, and although they do not, of course, perform this service gratuitously, they offer some important advantages to both parties concerned. To the capitalist who lends money they offer credit instruments that are quite as safe as mortgages (inasmuch as they have the same security), but which are much more easily negotiable because they are not guaranteed by a particular piece of land, but by the entire assets of the society. As the society is generally a strong organization financially, the credit instruments which it issues circulate quite as readily as stocks or bonds. To the landowners who borrow money through them, these societies offer the following three advantages: (*a*) the loans they make are for long periods, *e.g.* seventy-five years; (*b*) repayment is effected very gradually, by means of small, almost imperceptible annuities; (*c*) they exact a comparatively low rate of interest.

For our own part, we do not highly appreciate the usefulness of land credit, no matter what ingenious forms may be given to it. Without going so far as to lay down an absolute and rigid rule regarding this subject, we maintain from a general point of view that there cannot be any great social advantage in making it easy for the small landowner to borrow money by way of a mortgage. Such loans often end disastrously. We are rather disposed to accept the opposite idea and insist upon the adoption of measures to restrict the right of the farmer (especially the small farmer) to borrow money by offering his land as security.

In the United States this is accomplished by means of so-called *homestead laws*. The homestead may be defined as the house, and the land connected therewith, which forms the immediate residence of a family. Homesteads are secured beyond reach of creditors or liabilities on the part of their owners. The extent to which the homestead is exempt from seizure for debts varies, according to the laws of the various states, from $500 in Maine to $5000 in California.

§ 2. AGRICULTURAL CREDIT. The farmer has need not only of the capital required to purchase a farm and its necessary equipment in buildings, etc., but also of a certain amount of floating capital to meet the expenses of carrying on agriculture. Farming, by its very nature, does not yield its returns until the end of a year's work, and sometimes only after a much longer period of working and waiting. There is, however, during all this time a constant need of expenditure, and the farmer continually needs funds to meet these running expenses. It is the object of agricultural credit to provide capital for this purpose.

Agricultural credit, in the sense here given to it, is not based on the land itself. It is secured either by the equipment of the farm, its cattle and crops, or by the personal solvency of the debtor, usually backed up by his membership in some organization which holds its participants liable for each other's debts.

The second of these methods has made remarkable progress in Germany, in the form of mutual credit societies among farmers. These farmers lend money to each other through the medium of their societies, and employ their *collective* credit to obtain loans from outsiders upon terms much more favorable than any individual would be likely to receive for himself. The most celebrated of these organizations are the Raiffeisen Loan Banks, so named after their founder. They present the following features: (*a*) members, as such, make no payment to the organization, as there are no "shares" or "capital stock"; (*b*) they receive no dividends, and whatever profits there may be constitute a part of the general funds;

(*c*) the members are all liable, to the extent of their property, for each other's debts. The last of these features explains the exceptional moral and educational value of these organizations.

§ 3. PEOPLE'S BANKS. It is a familiar remark that "only the rich can borrow," and the experience of every day seems to prove it. Yet the poor also may have need of credit, even more than the rich. How, then, can they obtain it?

This problem is easily solved by coöperation. An isolated laborer or artisan, no matter how honest or industrious he may be, cannot furnish sufficient guarantee for a loan. Sickness, loss of work, and death, may at any time overtake him and make it impossible, despite his best intentions, to pay back what he has borrowed. But if laborers or artisans to the number of ten, a hundred, or a thousand are grouped in an organization, and held together, if need be, by the ties of collective responsibility, the security they have to offer will be considerably greater, and they will find it much easier to obtain credit without falling into the hands of usurers. The dues which are paid to such an organization, moreover, will ultimately build up a large amount of capital which the organization can lend to its members.

Under the leadership of a man whose name is still connected with them, — that of Schulze-Delitzsch, — these *coöperative banks*, the essential characteristic of which is the unlimited liability of all members, have achieved extraordinary success in Germany.[1] The heads of these associations hope that they will enable small-scale industry to compete with the larger industrial concerns, by helping them to obtain the capital and the equipment which they need. This will be an exceedingly important result, if ever it is accomplished.

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[1] The first of these banks was established in 1849. The system made but slow progress until 1860, when it grew more rapidly. According to the latest report issued (that of 1901) there were 940 German coöperative banking associations and 621 consumers' coöperative societies. Statistics are given for only 870 of the former, having a total membership of 511,000, a capital (including shares, deposits, and loans) of $200,000,000. The loans made to members amounted to nearly $575,000,000. Compared with this enormous amount of business, the losses were insignificant, — only one-twentieth of one per cent. The profits amounted to $3,000,000, most of which was divided among the members, — not, as the coöperative principle would seem to dictate, according to their loans, but according to the value of their shares.

It should be pointed out, however, that these coöperative banks, whenever they succeed in sustaining small-scale commerce and small-scale individualistic production, are accomplishing an object diametrically opposed to that of consumers' and producers' coöperative associations. It is for this reason that coöperators of the latter type are not enthusiastic over institutions of the first-named variety.

Apparently the only system which could to any noteworthy degree improve the conditions of our city working-classes is that which would grant credit to groups of producers and enable them collectively to acquire ownership of their instruments of production. (See the next Book.) Experiments along this line were made in France during the reign of Napoleon III. But up to the present, credit granted to groups of laborers for productive purposes has accomplished nothing of importance.

§ 4. BUILDING ASSOCIATIONS. In England and the United States there seem to be no coöperative banks, strictly speaking. Coöperative credit in these countries has been confined almost exclusively to the so-called *building and loan associations*, the primary object of which is to enable working men to build or acquire homes for themselves, the property being mortgaged to the association till the amount advanced is fully repaid.

The first building society in England was organized in 1781, although societies of this sort were not recognized by law until 1836. By the year 1898 there were some 2500 of them in England, with aggregate assets of nearly $300,000,000. The first building association in America was organized at Frankford (now a part of Philadelphia) in 1831. According to the Report of the Commissioner of Labor (1893) there are nearly 6000 such associations in the United

States, with nearly 2,000,000 shareholders and assets of over $450,000,000.

The building and loan association is practically a coöperative savings bank. Its chief advantage over the ordinary savings institution is that its funds are used by the depositors themselves in their own interests, and not placed at the service of business men and corporations. Every member has a voice and vote in the management of the association, and shares in the profits. A board of managers has charge of supervising the business of the association. As now commonly organized, they issue a fraction of the capital stock, usually one-tenth, in what is known as a "series," and require that it be paid in monthly instalments, commonly called dues, — usually at the rate of $1 per month on a share of stock the par value of which is $200. Whenever the monthly payments, plus the accumulated profits, equal the face value of the shares, the series is retired. A series usually extends over ten to twelve years.

The money obtained by the association is loaned to shareholders who desire to buy or build homes. No member can borrow more than the face value of his shares. Thus, the man who has subscribed to five shares may borrow as much as $1000, if sufficient funds are on hand. When the amount in the treasury is inadequate to meet the wants of all who wish to borrow, the loan is awarded to whoever will give the highest premium for the use of the money; this "premium" consists in the payment of a few cents on each share, above and beyond the interest required by the association.

As a rule, the money paid into the association by a borrowing member during the life of the series in which he is interested amounts to little more than the rental price of the mortgaged property for the same period; hence it is sometimes said by those who get homes with the help of a building association that "the rent pays for the place." The borrower who regularly pays his dues and the interest on his loan will in a few years find himself in possession of paid-up shares which will cancel the principal of the debt when it becomes due and leave him owner of his house without encumbrance.

There can be no doubt that these organizations have rendered noteworthy services. The 4500 societies for which reports were made in 1893 had helped in the acquisition of over 300,000 homes. It was therefore not entirely without justification that Hon. Seymour Dexter, president of the National League of Local Building and Loan Associations, declared these organizations "the most successful form of coöperation yet evolved; every association the center of an influence stimulating industry, frugality, temperance, home-owning and good citizenship."

XII. Free Banks

The economists of half a century ago upheld the doctrine of free banks quite as strenuously as the doctrine of free trade. They insisted that there should be both free competition and free issue; in other words, that any one should have the right to engage in the banking business if he chose to do so, and that all banks should have the right to issue notes at their own discretion and upon their own responsibility. Let us consider these two points.

I. The argument advanced for free competition in the banking business was the classical plea that monopoly means dearness, whereas competition means cheapness. By dearness and cheapness in this connection they meant the high or low price demanded by the banks for their services.

To this we may reply, first of all, that it is by no means certain that competition necessarily causes cheapness or that monopoly causes dearness. There are numerous exceptions to this economic principle, even with regard to the production of ordinary commodities (see page 153); and in the present case it is of particularly doubtful validity. Experience does not prove that the cost of discounting is lowest wherever banks are most numerous. Although the Bank of France, for example, enjoys a privileged position, and does business by right of a government grant, its rate of discount rarely exceeds 3½ per cent.

It should be noted, moreover, that the above classical argument has nothing to do with the most important aspect of the question. The problem of monopoly versus competition does not arise with reference to banking operations in general, nor especially with reference to discounting. No one denies the right of any bank or similar organization to discount commercial paper. Hence it is mainly with reference to the issue of notes that the problem of monopoly versus competition arises. But this problem concerns the general public much more than the commercial classes. The bank note is for its possessor simply a kind of money, and scarcely anybody advocates free competition in the issue of money. The right to coin money is reserved by the government to itself, and the Supreme Court of the United States has held that the power to issue paper money is one of the powers belonging to sovereignty. Therefore, when we have to do with the issuing of bank notes it is perfectly reasonable for the government, when it does not exercise this right, to confer it upon such institution or institutions as command the confidence of the nation.

When there are many banks of issue there is likely to be a great variety of bank notes, unless the government provides for a uniform system such as that which prevails in the United States and Switzerland. There is, on the other hand, a reasonable hope that when there are but a few great banks or only one bank of issue in each country, we may more easily approach a state of affairs in which there will be but one kind of bank note, circulating in all countries without difficulty and thus realizing the long-sought ideal of a universal money. (See page 227, note 1.)

II. As regards the unrestricted issue of notes and the suppression of all governmental intervention in this respect, the stock argument is that there can never be any danger of an excessive issue of notes. This danger, it is claimed, is purely illusory; the simple play of economic forces will confine the issue within proper limits, even though the banks should try to overstep them. The reasons given for this are three in number:—

(*a*) In the first place, bank notes are issued only in the course of banking operations, *i.e.* by way of discounts or advances on credit instruments. In order, therefore, that bank notes shall circulate, it is not sufficient for the bank merely to desire that they shall do so; some one must be disposed to borrow money from the bank and to accept its notes. Issues are thus regulated by the needs of the public, and not by the wishes of bankers. *The quantity of notes that the bank can issue depends on the amount of commercial paper presented for discount*, and the quantity of this paper depends in turn on the condition of business.

(*b*) Again, bank notes circulate only for a short time. A few weeks after being issued, they return to the bank. Take, for example, a note for $100 which is issued in exchange for a draft; in a few weeks, — ninety days at the most, — when the bank collects the draft, the $100 note will probably be returned. Perhaps it will not be the same note. But what does that matter, provided it be a bank note? *The bank will*, in the course of a month's or a year's business, *take in about as many notes as it issues.*

(*c*) Finally, even admitting that the bank could issue an excess of notes, *it will be impossible to keep them in circulation;* for if too many are issued they will necessarily be depreciated, and as soon as they are depreciated (no matter how small the depreciation may be) the holders of notes will bring them to the bank and demand payment. It is, therefore, useless for a bank to inundate the public with notes, because the bank will in turn be inundated with them.

The above three arguments certainly contain an element of truth, and experience has generally confirmed them. Banks have rarely succeeded in putting more notes in circulation than the public requires. Yet we cannot disguise the fact that the absolutely unrestricted right of issue may create grave dangers, at least in times of crises, — and crises are becoming more and more frequent occurrences in the economic life of modern society.

No doubt it is true that in theory the amount of notes issued depends on the public need for them and not on the will of the banks; but if an unscrupulous bank should aim solely at attracting customers, it could, by sufficiently lowering the rate of discount, largely increase its business and thus augment the amount of its notes in circulation. It is likewise true that notes issued in excessive quantities by such a bank will be returned to it for payment as soon as they become depreciated. But it must be remembered that this depreciation does not take place immediately. It will require several days, perhaps several weeks. If, during this period, the bank has issued an excessive quantity of notes, it will be too late when they return; the bank will no longer be able to redeem them and will be "swamped" by its own excessive issues. The bank itself will, to be sure, be the first party to suffer by its own mistake. But this does not concern us here; we are now examining the possibility of a crisis, and not at all concerned with the punishment of its authors.

XIII. The Organization of Banks

We have already pointed out that the two important problems which arise in connection with banking are indicated by the questions: (1) Shall anybody and everybody have the right to start a bank if he chooses? (2) What restrictions, if any, shall be established concerning the issue of notes by banks? To answer these two questions satisfactorily is to solve the fundamental problems of bank organization.

The system of absolute liberty adverted to in the preceding section, *i.e.* free competition in the issue of bank notes, and the total absence of restriction, is practised almost nowhere. The only example is that of Scotland; and although legally free competition prevails in that country, there are in reality only a few banks, each having very numerous branches, which possess the right of issue. Although, moreover, there is no regulation of issues, strictly speaking, a very effective guarantee consists in the fact that all shareholders are liable, without limit, for all the obligations of the bank, including the notes issued by it.

Everywhere else, either a system of monopoly, or of restriction and regulation by law, has prevailed; generally there has been a combination of both systems. Where the monopoly system obtains, the sole right to issue notes is exercised either directly by the government, — in which cases we speak of *Government Banks*, — or else it is conferred by the government on some private bank which offers certain guarantees. The system of government banks prevails only in Russia, Sweden and (since a short while ago) Switzerland. Although this arrangement is favored by socialists, who regard it as the "socialization" of credit and as one of the steps toward the collectivist state, it is generally condemned as giving the government a commercial character for which it is ill suited, and as preparing the way for issues of paper money by giving rise to an unfortunate confusion of government credit with the credit of the bank.

In most countries a combination of both systems has been adopted; that is to say, some adjustment by which there is neither an absolute government monopoly of the right to issue notes, nor the full and unrestricted permission for everybody to issue them. The experience of our own country in this respect has been sufficiently varied to exemplify the nature of the difficulties encountered in the organization of banks of issue.

Early American banks. At the present time the issuing of notes is not regarded as a necessary function of banks, nor is it the chief part of their business. But in the early history of our country the main business of a bank was to issue "circulating notes." In New England the commonest conception of a private bank was that of a company or partnership formed to supply circulating notes as a medium of exchange in addition to the "bills of credit" issued by the colonial governments. In the charters of the earliest banks, such as the Bank of North America, there is no mention of circulating notes, since the right to issue them existed without legislative authorization. It was generally believed, moreover, that if these circulating notes were based on landed security, current redemption would not be necessary. In this view, no capital was needed to start a bank, but merely confidence.

The first bank in the modern sense of the term appears to have been the Bank of North America, conceived by Robert Morris, the financier of the Revolution, and chartered by the state of Pennsylvania in 1781. It was closely followed by the Bank of Massachusetts, chartered in 1784, and the Bank of New York, which began business in the same year. The last-named institution owes its foundation to Alexander Hamilton, who counselled the New York merchants against the "land bank" which they were about to found, and who drew up articles for a "money bank" in its stead.

The two United States Banks. Hamilton was also responsible for the conception of the first Bank of the United States, chartered by Congress in 1791. The capital was $10,000,000, of which $8,000,000 was open to public subscription, and the remainder subscribed by the United States government. It was provided that payment should be made one-fourth in specie and three-fourths in government obligations bearing 6 per cent interest. This provision naturally strengthened the credit of the government by creating a demand for its obligations. At the same time the government pledged itself to grant no other charter for a bank during the continuance of this one, which was limited to twenty years. The bank could not be indebted for a greater amount than its capital stock, over and above the amount of its deposits; that is, the deposits were not to be counted as liabilities, in estimating its rights to contract debts. This meant substantially that the notes issued by the bank might be equal in amount to the capital stock. The notes of the bank were made receivable for all public dues so long as they were payable in gold and silver coin.

The consensus of opinion with regard to this bank is strongly in its favor. It served as a regulator of the currency and maintained a high standard of commercial honor. Unfortunately, the renewal of the charter was made a political issue. The weakness of the Federal party, which had been favorable to the bank, and the opposition of the state banks who wished to get rid of a superior rival, resulted in a refusal to renew the bank's charter.

The state banks now held the field alone. Almost all of them were of the joint-stock type, based on the principle of limited liability.[1] In 1812, a year after the charter of the Bank of the United States had expired, the second war with Great Britain began. A short time afterward nearly all the banks of the country except those of New England suspended specie payments. This was followed by an enormous increase of issues, so that the outstanding notes, which had been estimated at $20,000,000 in 1811, rose to somewhere between $62,000,000 and $70,000,000 in 1813, and to somewhere between $99,000,000 and $110,000,000 in 1815. The circulating paper was of every degree of value, down to utter worthlessness.[2] These flagrant evils of the financial system called for reform, and as a result the second Bank of the United States was chartered in 1816, on a similar plan and with the same general objects as the first bank of the same name. The capital was $35,000,000, of which the government subscribed one-fifth. During its early history the bank was shamefully mismanaged, but it was later restored to a sounder position. The notes of this bank, too, which were required to be paid in specie, were receivable for all public dues. It brought about the resumption of specie payments and put an end to the disorders and fluctuations which had previously prevailed.

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[1] Concerning these banks Mr. J. R. McCulloch wrote as follows: "Had a committee of clever men been selected to devise means by which the public might be tempted to engage in all manner of absurd projects, and be most easily duped and swindled, we do not know that they could have hit upon anything half so likely to effect their object as the existing American banking system. It has no redeeming quality about it, but is, from beginning to end, a compound of quackery and imposture."

[2] Professor W. G. Sumner, in his "History of American Currency" tells of one bank in Massachusetts with a nominal capital of $1,000,000. Only

This bank, like its predecessor of the same name, was drawn into politics when the question of a renewal of its charter arose during Jackson's first administration. The recharter of the bank was made the main political issue of 1832, and Jackson's opponents, who defended the bank, were defeated. Thus, in 1836, the charter expired and Congress refused to grant a new one.

The State Banks up to 1863. There seems no doubt that the evils of this period were due chiefly to vices of banking. The facility of local issue, without the reality or scarcely the pretence of redemption, made the banks reckless as to the character of the enterprises to which they gave assistance; while the money thus put into circulation enhanced prices and still further stimulated both speculative investments and speculative trading. The retribution came in the panics of 1837 and 1839, during which the United States lost the deposits it had placed in the private banks, and in the long and dreary prostration of industry which followed.[1]

The first improvement in the state-bank system originated in Massachusetts, where the Suffolk Bank in Boston, char-

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$19,141.46 was ever paid in; and of this the directors subsequently withdrew their own subscriptions, leaving $3,081.11. One man bought out eleven directors for $1300 and then loaned himself $760,265. When the bank failed, it had $86.46 in specie, whereas the notes outstanding were estimated at $580,000.

[1] See Francis Walker, "Political Economy," page 441.

tered as an ordinary bank of issue and deposit in 1818, offered to redeem country bank notes at par if the issuing banks would provide funds for that purpose, and would also make permanent deposits in the Suffolk Bank (which regarded the use of these deposits as a compensation for its services). At first only a few of the country banks acceded to this proposal, whereupon the Suffolk Bank made it a point to send home for redemption all the notes of the non-assenting banks which it could find. Eventually all the country banks were forced into the arrangement, because it was found that under the new system their credit was so much improved that their notes acquired circulation in all parts of the United States and Canada.[1]

Two important banking experiments were tried in New York by the legislature of that state, known respectively as the *safety-fund* system and the *free-bank* or *bond-deposit* system, both of which found imitators. The first of these, introduced by the law of 1829, was practically a mutual insurance of the banks for the protection of their creditors. It provided that every bank chartered under it should pay into a "bank fund" one-half of one per cent of its capital each year, until the fund should be equal to three per cent of its capital stock. This fund was to be applied solely to the payment of the debts of insolvent banks after their assets were exhausted. Whenever the fund should be reduced, the banks were called upon for fresh contributions at the same rate as the original ones. The law also provided for the appointment of three commissioners to examine all the banks three times a year, or oftener if required to do so. Any three banks might call for a special examination of any bank in the system.

It is probable that the safety-fund would have proved ample indemnity to the holders of bank notes if it had not unfortunately been applied to the payment of other debts than those due for circulation; but the numerous bank failures of 1840–1842 exhausted the fund. Many banks, moreover, fraudulently issued more notes than was allowed by law. This was made possible by the absence of anything like a proper system of public registration or supervision of issues. By the time that the system had been brought nearer perfection by amendments of various kinds, the charters of the "safety banks" expired, and the national bank system was established.

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[1] See Horace White, "Money and Banking," second edition, page 325.

The second New York experiment, — more radical than the first, — was begun in 1838. Before that year no one could get a banking charter in the state of New York without a special act of the legislature, and no one could invest money in a new bank without the consent of the bank commissioners of the state. The right to start a bank was made a part of the spoils of the triumphant political party, and this corrupt state of affairs led to a popular reaction and to the passage of a law enabling any person or association of persons to engage in the business of banking, and to circulate notes on condition that these notes be secured by deposits of such public stocks, bonds, mortgages, etc., as were approved by the state comptroller. Later the law was amended so that only the stocks of the United States and of the state of New York should be accepted as security for the note issues of the free banks.[1]

In several of the states which followed the example of New York, the free-bank and bond-deposit system proved a failure because bad securities were taken for the note issues. Before these states had time to perfect their system, the Civil War broke out, and the National Bank Act soon afterward superseded all other systems.

The National Banking System. The financial necessities of the Civil War made it desirable to place large government

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[1] The National banking system was to some extent modelled upon this New York bond-deposit system.

Besides the banks of Massachusetts and New York, to which we have had occasion to refer because of the experiments which they tried, important loans upon the market. Accordingly, Mr. Chase, Secretary of the Treasury, advocated a system of "national banks" whose note issues should be secured by an abundant deposit, at the Treasury department, of United States bonds. In order that these banks should have a practical monopoly of the right of issue, the state banks were to be obliged to pay a virtually prohibitive tax of 10 per cent on their notes. These suggestions were not all carried out until 1865, and although their adoption came too late to be of any help in the financial difficulties of the war, they resulted in placing the bank currency of the country on a more secure and convenient basis. Before this time, the innumerable state banks, under special charters, and practically subject to no real regulation or supervision, had put into circulation the most heterogeneous bank money conceivable. Part of this money was subject to a discount of as much as 25 per cent when offered for acceptance far away from the place of issue, or when issued by a bank whose name was not familiar. This unwillingness to accept some of the bank money is perfectly comprehensible when we recall that banks were constantly failing, that there was an abundance of notes issued by banks which had no real existence save in the minds of the rogues who manufactured the notes, and that professional sharpers made it a business to alter or counterfeit bank notes.[1] Under the new system all these evils disappeared, and now a

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progress was made by the banks of some other states. A Louisiana law of 1842 required the banks of that state to keep a cash reserve in a definite proportion to their deposits and circulation. This appears to be the first law of its kind in America.

[1] Those who were in the habit of receiving bank notes found it necessary to study carefully the "Counterfeit Detectors" and other publications whose purpose it was to inform their readers what notes to accept and what notes to refuse. One of these detectors (Bicknall's "Counterfeit Detector and Bank Note List" of January 1, 1839) contained the names of 54 banks which had failed; of 20 fictitious banks, the pretended notes of which were in circulation; of 43 other banks for the notes of which there was no sale; of 254 banks the notes of which had been altered or counterfeited; and enumerated 1395 descriptions of counterfeited or altered notes then supposed to be in circu-

national bank note issued in one state will circulate all over the Union as readily as at home.

The principal features of the national banking system, as at present organized, are as follows: —

There is a bureau of the Treasury Department, the chief officer of which is the Comptroller of the Currency, having the duty to take charge of all matters relating to the "national banks." A national bank is organized in much the same way as any other corporation, by any number of persons not less than five. Upon application to the Comptroller the corporation will be granted or refused a charter, according to the decision of the Comptroller. When granted, the charter continues for not more than twenty years, but is renewable with the consent of the Comptroller. Each bank is required to report its condition five times a year.

The minimum amount of capital which a national bank must have depends on the population of the place in which it is located, but can never be less than $25,000, and in cities having a population of 50,000 it must be at least $200,000. Each national bank, beside being allowed to carry on the ordinary business of a bank (making loans, discounting notes, buying and selling exchange) is allowed to issue "national bank notes" for circulation as money of the United States.[1]

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lation, of denominations from $1 to $500. In 1859, Nicholas' "Bank Note Reporter" had 5400 separate descriptions of counterfeit, altered, and spurious notes. (See Horace White, "Money and Banking," second edition, page 552.)

[1] There are at present six kinds of paper money in use in this country. These are: (1) United States notes, or "greenbacks"; (2) silver certificates; (3) gold certificates; (4) Treasury notes of 1890; (5) national bank notes, as above described; and (6) currency certificates.

We have already referred to all of these in detail except the Treasury notes of 1890 and the currency certificates. The issue of the former was provided for by the Sherman Act of 1890, according to which a certain amount of silver bullion was to be purchased monthly by the Secretary of the Treasury. This bullion was to be paid for by a new kind of paper money called *Treasury notes of 1890.*

"Currency certificates" are issued to national banks in exchange for United States notes deposited in the Treasury. Their denominations are not less than $5000.

The stock-holders are liable for the debts of the bank up to double the par value of their stock.

When a national bank is organized, it must invest in United States bonds a sum of money equal to at least one-fourth of its capital. These bonds must be deposited in the Treasury of the United States; but they are still the property of the bank, which receives the interest on them. Upon the security of these bonds the bank receives from the Comptroller an amount of national bank notes equivalent to the par value of the bonds deposited. Then the president and the cashier of the bank sign each note, and they may be loaned or paid out. If the bonds should ever fall below par, the Comptroller may require additional security.

The national bank notes are not legal tender, although the government will receive them for all taxes except duties on imports. Each national bank is required to receive the notes of every other bank at par value, and to redeem its own notes on demand in legal-tender money. If it cannot do this, the Comptroller will sell the bank's bonds and thus obtain money to redeem them. The banks, moreover, must deposit in the Treasury a fund in lawful money (bearing no interest) equal to 5 per cent of their outstanding circulation; this fund, which is counted as a part of the lawful reserve, is intended to be used for the redemption of notes in sums of $1000 or any multiple thereof.

Each bank is required to keep a reserve of lawful money. In the so-called "reserve cities" designated by Congress the amount is 25 per cent of their deposits. Banks outside these cities need keep a reserve of only 15 per cent of their deposits; they may, moreover, deposit 60 per cent

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On October 1, 1902, the circulating currency of the United States was made up as follows:—

Metal. Gold coin, $624,728,060; standard silver dollars, $75,043,729; subsidiary silver, $89.906,205.

Paper. Gold certificates, $304,382,054; silver certificates, $459,571,478; Treasury notes of 1890, $26,741,790; United States notes, $342,930,086; national bank notes, $352,383,259.

of their reserves in "credit reserve cities," *i.e.* in New York, Chicago, and St. Louis.

The national banks are taxed one-half of one per cent on their circulation,[1] whereas the state banks (as we have said) must pay 10 per cent. The object of this vast difference is to compel the latter banks either to come into the national system or to cease issuing notes to circulate as money.

It is evident that one great merit of this system is the unification of banking in all the states and territories. In fact, all the national bank notes of similar denomination, — the smallest denomination is $5, — present a similar appearance, being manufactured by the United States government on a uniform plan. Inasmuch, furthermore, as the government bonds have always commanded a premium, there has never been any doubt as to the soundness of the currency issued under this system. "With regard to its volume," says President Hadley, "there have been many complaints. For some years the banks were anxious to increase their circulation, and a limitation on the total amount which they were allowed to keep outstanding was considered a hardship. After 1880, on the other hand, the price of the United States bonds became so high as to render the maintenance of the circulation unprofitable, and a large amount was surrendered, reducing the total volume of the bank-note issues to a figure less than half of that which the law would have allowed."[2]

The Bank of England. In 1694 the English government required a loan of £1,200,000 to continue the war against France. The subscribers to this loan were formed into a chartered company known as the Bank of England, which was given the right to issue interest-bearing notes to the amount of the loan. Three years later the bank made another loan to the government, and was authorized to issue demand notes, payable to the bearer, for a total amount equal to the new loan. These notes were accepted by the public, at par, quite as readily as those previously issued. A few years later (1709) Parliament decreed that no other corporation or partnership of more than six persons should exercise the right to issue demand notes in England. This restriction did not concern Scotland or Ireland.

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[1] When the bonds deposited by a bank bear more than 2 per cent interest, a bank must pay 1 per cent annually on the average amount of its notes in circulation. The tax does not apply to circulation for the retirement of which lawful money has been deposited in the Treasury.

[2] Hadley, "Economics," page 256. On September 1, 1902, there were 4269 national banks, with a total capital of $673,763,767, and the amount of national bank notes in circulation was about $350,000,000.

The charter of the bank was renewed from time to time, usually on the condition of new loans to the government, or a reduction of the rate of interest on former ones. These loans to the government for war purposes became so large and so frequent that the bank was obliged to suspend specie payments from 1797 to 1821.

In 1826 the monopoly of the bank was relaxed, and the privilege of note issues was granted to joint-stock banks at a distance of sixty-five miles or more from London. By 1844 seventy-two such banks had been established. In 1829 the issue of £1 bank notes was suspended in England, and the issue of notes smaller than £5 was prohibited, for the purpose of "saturating the currency with a larger infusion of gold."

In 1833 Parliament passed an act making the notes of the Bank of England, so long as they are redeemed in gold on demand, legal tender at all places in England and Wales except at the bank itself.

The crisis of 1836 and 1839, ascribed to the over-issues of bank paper, led to a movement in favor of reform. No change, however, was effected until Sir Robert Peel's Act of 1844. By this act the issue of notes was made automatic, and all discretionary power in this respect taken out of the hands of the bank authorities. The Bank of England was divided into two distinct departments. One of these departments was charged with banking operations (deposits and discounts), but had no right to issue notes. The other was entrusted with the issuing of notes, but permitted to transact no banking business. The sum of £14,000,000 of securities, including the government's debt to the bank, was transferred to the issue department, which should turn over to the banking department £14,000,000 of notes. This was the average amount of the bank's notes then outstanding. Above and beyond this sum, the issue department could issue notes to any persons only in exchange for gold coin or standard gold bullion. Banks and banking firms having the right to issue notes at that time were allowed to continue to issue the same average amount of notes; but if they should cease to do so, the Bank of England might be authorized by the Privy Council to issue two-thirds of the amount so withdrawn, by adding an equivalent sum to the government securities in the issue department. Under the operation of this clause the circulation of the bank against securities has been gradually raised to £17,775,000. Every note beyond this sum must be based on an equal amount of coin or bullion placed in the hands of the bank. Even the bank itself cannot get notes on terms different from these. When it wants fresh supplies of notes, it must take gold out of the banking department and transfer it to the issue department; and to recover gold, it must reverse the process. To all intents and purposes the Bank of England note is of the same nature as our gold certificate. (See page 259.)

Three times, during the crises of 1847, 1857, and 1866, this system has been found wanting, and the government has suspended the restriction on the note issues of the bank and given it the discretionary power which the Act of 1844 had been designed to take away. In all these instances the panic subsided as soon as it was known that notes could be had at a reasonable price. It must not be supposed, however, that the suspension of the Act meant the suspension of specie payments, but simply that the bank might issue notes at its own risk, without a corresponding deposit of gold. Whatever notes the bank puts out at any time it must redeem in gold on demand.

It cannot be said that the monopoly system prevails in England. The Bank of England has no exclusive right to issue notes, except so far as London is concerned. Nor is the English system one of free competition, inasmuch as the number of banks that may issue notes is limited to those that possessed this privilege in 1844. These private banks, however, are not immortal, but will doubtless disappear sooner or later; and when there are none of them left, the Bank of England will possess a virtual and legal monopoly of the right of issue. As a matter of fact, the number of these provincial banks of issue has fallen since 1844 from 279 to 63.

The Bank of France. The Bank of France has the sole right to issue notes. It is not, as is sometimes asserted, a government bank, but a stock company, organized like any other stock company whose capital is furnished by private citizens; except that, instead of being managed wholly by the stockholders, its governor and vice-governor are appointed by the government.

The Bank of France was founded by Napoleon while he was yet First Consul, on February 13, 1800. But its privilege of issuing notes dates only from 1803. Even then it could exercise that privilege only in Paris and in cities in which it established branches. Subsequently other banks received the same privilege in the principal provincial cities. But after 1848, when these banks were merged in the Bank of France, it exercised the exclusive right of note issue in the whole of France; the right has been renewed several times for periods of thirty years, and in 1897 was again extended till 1920. This privilege, however, is not conferred on the bank gratuitously, but is made subject to numerous conditions, of which the following are the most important: —

(1) The Bank is permitted to discount only such bills of exchange as bear three signatures and are drawn for ninety days at the most.[1]

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[1] It should be added that the Bank is obliged to charge the same rate of discount for everybody, and that it is unable to charge a rate determined by

(2) It is not allowed to pay interest on its deposits.

(3) It can make loans on certain kinds of securities or on bullion; but it must not permit customers, — except the government, — to overdraw their accounts. To the government it is obliged to make certain "uncovered" loans.[1]

(4) It cannot issue notes to a larger amount than 5,000,000,000 francs ($1,000,000,000).

(5) It is obliged to share its profits with the government according to a rather complicated method of calculation based on the amount of notes issued and the rate of discount.[2]

In the ordinary business of banking, such as discounting and dealing in exchange, the Bank of France has many competitors, not only in private banks, but in great banking associations which possess immense capital. In fact, the Bank does comparatively little discounting, and the volume of its discount business is now decreasing. Its true function as a banking institution is, as some have expressed it, that of a "bank of banks" and a treasurer for other institutions. Whenever the latter need money, or simply want to avoid the trouble of collecting payment for commercial paper, they get the Bank of France to re-discount the paper they have accepted; thus they relieve themselves of the necessity of keeping a large specie reserve. It may be said, therefore, that the whole credit of the country depends indirectly on the reserve of the Bank of France. This great responsibility explains why the Bank must keep an enormous reserve, which now amounts to over $600,000,000.

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the solvency or amount of the credit instruments presented by each customer. This inability to do as the other banks do is troublesome to the Bank and reduces its opportunities of profit; but it is due to the theory that small merchants should not be obliged to pay more than large business concerns.

[1] The law of 1897, by which the charter of the bank was renewed, obliges the Bank to lend to the government, *without interest*, the sum of 180,000,000 francs, — aside from the sum of 40,000,000, which it lends for agricultural credit associations.

[2] The government's share in 1900 was 5,655,000 francs. If we add to this the taxes on notes, and other taxes, the state received 8,783,000 francs, — almost one-fourth as much as the shareholders.

Whether the system adopted by a nation be that of competition or that of monopoly, some arrangement (except in Scotland) is always devised to insure the redemption of the notes. Four systems may be distinguished, each of which has been tried in some country: —

(1) The first consists in *limiting the amount of the notes in circulation by the amount of the reserve.*[1]

This is the system applied to the Bank of England by the Act of 1844, according to which, as we have seen, the bank can issue notes only to the amount of its reserve, plus £17,775,000. Why was this additional amount of notes allowed? Because the British Parliament considered that within this limit there was no danger of the bank's inability to redeem its notes, the greater part of these £17,775,000 being a national debt, the redemption of which is consequently guaranteed by the government, and the remainder being equivalent to the amount of notes for which payment will never be demanded, because they are lost or too far distant.

In the case of any other bank than the Bank of England, this limitation could not be regarded as furnishing a very satisfactory guarantee for specie payment. The capital of a bank is not an asset that can be converted into money immediately, especially when, as in this case, it is represented for the greater part by a mere claim on the government.

In practice, moreover, and precisely in times of crises, this limitation has been found so unsatisfactory that it has thrice been suspended and the bank permitted to exceed the legal limit. It is obvious that if the bank happens to have a reserve of £20,000,000, and £37,775,000 of notes in circulation, it will be obliged to refuse all discount. For with what could it discount the bills presented? Not with notes, because the limit of £17,775,000 is already reached. Nor with the specie in its reserve, because if the reserve were reduced by only one shilling (the amount of notes in circulation still remaining £37,775,000) the permissible margin would be exceeded, and the law violated. Yet the Bank of England cannot refuse discount without involving the destruction of a large part of the nation's business! The worst feature of all this is that it becomes necessary to suspend the law, and that the government, not the Bank, should assume the terrible responsibility.

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[1] This is what is generally known as the "currency principle" for regulating circulation, as opposed to the "banking principle" or principle of bank liberty, to which we shall refer later. The currency principle is based on the belief that something more than sound banking is needed to give a country good bank money.

(2) The second method consists in fixing *a certain ratio* (generally one to three) *between the amount of the reserve and that of the notes issued.* This rule is observed in Belgium and Germany,[1] but not by the Bank of France (although a popular misconception has given rise to the contrary impression). This system is more elastic than the preceding one, but leads to the same result, at times making all discount and even all conversion of notes impossible, and thus creating the very danger that we are seeking to avoid.[2]

(3) The third plan consists in simply *fixing a maximum of issue.*

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[1] In Germany the value of notes issued may not, as a rule, exceed three times the reserve, and the two-thirds of this excess over the reserve must be secured by credit instruments in the possession of the bank, that is by bills of exchange due in ninety days or less.

In case of an emergency, however, the bank may issue notes beyond this statutory limit, but in this case it must pay the enormous tax of 5 per cent of the value of notes thus issued. This measure is not unlike the suspension of the Peel Act in England. But it is much more practical, because there is no need to call for the intervention of the government and the legislature; the bank itself raises the barrier, so to speak, without causing any public sensation or a panic.

[2] Let us suppose that the reserve is $100,000,000 and the issue of notes $300,000,000, for the sake of illustration. This would be the limit of issue allowed by law under the above condition. But at this stage the bank cannot redeem a single note without reducing its reserve to less than one-third the amount of notes, — for 99,999,999 is not a third of 299,999,999.

This system is practised in France.[1] The maximum is 5,000,000,000 francs. But what is the use of limiting the issue of notes, if the bank can reduce its reserve to zero? What guarantee is there for the public? The sole guarantee consists in the prudence which a bank should exercise in order to maintain a proper ratio between the reserve and the circulation. (As a matter of fact, the reserve of the Bank of France is generally four-fifths, or at least two-thirds, of its circulation; on one occasion the reserve was even equal to the circulation.) But in this case the legal limit might just as well be done away with.

(4) The fourth plan is to compel banks to *secure their note issues by means of reliable instruments of value.* These instruments or securities are generally government bonds which are at least equal in value to the notes.

This, as we have seen, is the system employed in the United States. Each bank receives notes to the amount of the par value of the bonds it has deposited in the Treasury. In ordinary periods of commercial life, this security is not necessary to assure the credit of a bank. In times of crises, however, that is to say at just the time when security is most needed, this plan is no longer sufficient. For in the event of a crisis all stock-exchange securities, including government bonds, are necessarily depreciated; and if, in order to meet the demands of note-holders for payment in specie, the bonds of the banks are put on the market for sale, it would be a difficult matter to dispose of them for a sufficient amount.[2]

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[1] The maximum is of recent date. It was not given in the regulations of the bank, and, it may be said, was introduced by accident in the financial law of 1883. Previously it existed only in the case of forced circulation. Fixed at 3,500,000,000 francs in 1883, it was raised to 5,000,000,000 in 1897.

[2] Professor Gide evidently overlooks the fact that whenever the government bonds deposited by our national banks are depreciated, the Comptroller of the Currency may require additional security. (See page 411.) Many American economists, moreover, would be disposed to deny that the government bonds will ever depreciate to such an extent as to offer no sufficient security for the redemption of notes.

Bank notes in the United States are, in a word, simply government bonds chopped into pieces of circulating medium.

The example of the United States shows that the maximum of governmental regulation is reached in the very country where banks of issue are most numerous. The example of France, on the other hand, shows the minimum of regulation under a system of monopoly. It is natural that this should be so, for monopoly is itself a guarantee of efficiency.

We may say that. after all, no system thus far devised offers an absolute guarantee for the redemption of notes. The only sure method would be to require the banks always to keep a reserve equal not only to the amount of notes in circulation, but also to the sum total of their deposits. This, of course, would be an absolute guarantee ; but if it were adopted, the banks would no longer serve any purpose. They could no longer employ the floating capital of the nation, since they would be obliged to keep it unused in their vaults. Nor could they serve the purpose of economizing coin, since bank notes would merely represent coin. Banks would, in a word, no longer be institutions of *credit*. If we want to make use of credit, we must take the risks that accompany it. To seek to combine both the advantages of credit and those of strictly cash transactions is like seeking the square of the circle: the one excludes the other.

BOOK IV. DISTRIBUTION

PART I. THE VARIOUS SYSTEMS OF DISTRIBUTION

CHAPTER I—THE PRESENT SYSTEM

I. How the Distribution of Wealth is Effected

If men did not produce collectively, but each for himself, independently, every one would also keep for himself that which he produced, and the question of distribution could not even arise. Under such a system, the rule *suum cuique* would naturally apply. But this system, in which there could of course be no exchange and no division of labor, would be entirely incompatible with any kind of social life. Even among savages that live by hunting or fishing, the system of absolute economic independence is never entirely realized. And in present-day society what an extraordinary distribution of wealth would result if we should tell the baker who has produced a thousand loaves of bread, or the shoemaker who has made a hundred pairs of shoes that he had better keep them as his share of the social product.

Professor Stanley Jevons has compared the productive process, in which so many elements are combined, to the kitchen where Macbeth's three witches, in preparing their infernal compound, throw into their cauldron the most heterogeneous substances. By what subtle analysis shall we succeed in distinguishing the share that each one has contributed to the social product? In all civilized societies each individual is constantly selling or buying goods, and selling or employing services which are offered for sale, and thus ceaselessly influencing the amount and the nature of social wealth. Constantly wealth is being consumed or withdrawn from circulation; constantly wealth is being produced and put in circulation. The whole question of distribution is to discover whether each person withdraws from the social product a value equivalent to that which he contributes.

The classical economists answer this question affirmatively. They hold that in a society based on *the liberty of labor* and the *absolute freedom of contract*, (aside from those defects that are inseparable from all human institutions,) every one receives the just and exact equivalent of the wealth he creates. They admit that this is not entirely the case in our present industrial system; but, they declare, the defects of the present system are due to protection, legal monopolies, and government interference of all sorts.

The classical economists explain the distribution of wealth as follows: Each of us offers for sale the commodities he possesses. The farmer offers the crop taken from his land, the manufacturer offers the products of his shop or factory,[1] and the man who owns neither land nor capital offers his muscular strength or his intelligence. These products or services are sold at a price fixed on the market by the law of supply and demand; which amounts to saying (if we recall the explanation of value given on page 64) that they are sold at a high or low price according to the intensity of the desire felt by the public for these goods or services. Hence the public, by the value which it attributes to our products or our services, and the price which it consents to pay for them, determines the share that each of us shall receive. This price, known as wages, or as salary, or as rent, or as selling-price for whatever commodity we offer, constitutes our income.

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[1] It is perhaps unnecessary to point out that the expressions: *his* land, *his* factory, already imply the existence of private property, which, as we shall see presently, itself requires justification.

Is it not in conformity with social utility and even with justice that the goods which are most desired and which are most rare, *i.e.* which satisfy the most pressing wants of society and which are not sufficient in quantity entirely to satisfy these wants, should possess the greatest value? Does not the law of demand and supply, which regulates this value, secure to each person the equivalent of the product that he has made or the service that he has rendered? And is not this equivalent value measured in the most impartial and the least arbitrary manner by exchange in the open market, *i.e.* by means of free contract? Does not the public, by paying a high price for my products and a low price for yours, thus indicate the degree of importance or of social utility which it ascribes to our respective products or labors? One may object that the public is not a competent judge of this importance and utility. But who, then, could possibly be a better judge than the person who consumes our products or employs our services?

The classical economists point out, moreover, that competition always tends to correct any inequalities or injustices that may arise. For if it should happen that my products or my services bring an excessive price and great profits, a horde of rivals who are eager to make similar excessive profits will immediately engage in the same industry or profession as mine, and will soon, by increasing the supply of these products or services, reduce their value to the level of the cost of production. Thus the value of every commodity tends to be regulated by the trouble and expense necessary to produce it. Could any better rule than this be devised to determine distribution?

II. Why this System of Distribution does not seem Just

Such is the classical explanation and justification of the present distributive process. As a scientific explanation of what takes place, it is good. But as a justification, it is poor; and as such, it is in fact not wholly devoid of irony. Take, for example, a miner who gets \$2 a day or 25 cents an hour to extract coal; consider, on the other hand, a celebrated pianist like Paderewski, who receives as much as \$2500 for playing two or three selections at a concert. If we ask why the musician is paid ten thousand times as much as the workman, the disciples of Bastiat would unhesitatingly reply: "Because the former renders society a service ten thousand times greater than the latter; and the proof of this is that society is willing to pay ten thousand times as much for it. Society may be mistaken, but we cannot estimate the value of services except by the price that society attributes to them."[1]

If this be true, we must admit that the products, services, and labors that are most useful to mankind, — from the work of the humblest manual laborer up to that of some inventive genius who probably died of hunger, — may possess almost no exchange value. On the other hand, such labors or such acts (for often they do not deserve the name of labor) as provide the most fugitive or perhaps the most immoral pleasures may be purchased at extravagant prices, and make the fortunes of those that sell them. It must furthermore be admitted that all this is the inevitable and natural consequence of the law of value as we have explained it. But we must hasten to add that inasmuch as the law of value is a *natural* law, it is also *unmoral;* that is to say, it has nothing to do with the question of justice or injustice and is as little concerned with moral principles as any other natural law. The law of value is in this respect like the law of gravitation, or like the law that "maketh the sun to rise on the evil and on the good, and sendeth rain on the just and on the unjust."[2]

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[1] In this connection we are reminded of the reply that a well-known singer once made to the Empress Catherine when the latter complained that the artist asked for higher pay than that of a Russian Marshal. "Very well then," retorted the singer, "get your marshal to sing for you."

[2] The writer of the Dutch translation of this book, Mr. Herckenrath, re-

When an English lord owning large sections of London permits contractors to build houses on his land on condition that they shall pay a ground rent, which is raised at each renewal of the lease because of the increased value of land and of houses, we may readily admit that his remuneration, which amounts perhaps to millions, is naturally determined by the law of supply and demand. But we cannot readily see in what respect this remuneration is proportionate to the "service rendered" by the "landlord." Or, if some one should insist upon designating as a *service* the fact of having given permission to people to reside in the centre of London, it is difficult to perceive by virtue of what principle of justice or social usefulness the noble lord has been invested with the agreeable privilege of rendering his fellow-mortals a service that is so dearly paid.

Finally, as regards the classical hypothesis of a régime of absolute liberty, in which competition acts as a corrective and constantly keeps the price of things at the level of the cost of production, we must declare that this hypothesis never holds true entirely. The law of free competition never operates fully or perfectly. The examples that we have given above are, to be sure, cases of monopolies; but they are by no means exceptional. Almost all large fortunes owe their origin to some element of actual monopoly, or, to speak with more exactitude, some element of *rent*. We shall note later on that the name *rent* is applied to those cases in which, because of some element of inequality in the conditions of production, the law of competition does not produce its normal effect of bringing exchange value to the level of the cost of production. Now the cases of rent, which economists

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marks that these injustices of the law of value are due particularly to the fact that our *appreciations* or estimates of value are unjust, and that the progress of the moral education of mankind may change these appreciations and make them conform more closely to the idea of justice. This is quite possible. We have not said that the law of value is immoral, but that it is unmoral. If all men should become just and righteous, the law of values would also be just and righteous.

formerly regarded as confined to the revenue due to differences in the fertility and accessibility of land, are to-day conceded to extend to almost every kind of income.

But although we abandon the optimistic doctrine that regards the present distribution of wealth as in perfect harmony with our ideals of justice, we must nevertheless admit that the present method of distribution, founded on free competition and the law of demand and supply, accomplishes fairly well two things which are of capital importance, and without which we could scarcely get along: —

First, it stimulates productive activity. The amazing accumulation of wealth that marks our own epoch is sufficient to convince us of this. Theoretically, moreover, what better method could be conceived for raising individual activity to a maximum than to say to everybody: "Do whatever you can or whatever you wish. What you produce will belong to you. Try to make the best use of it. If your share of the social product is large, so much the better for you; if it is small, so much the worse."[1]

Perhaps it may even be said that the present economic system offers *too great* a stimulus to the pursuit of wealth, and that from the ethical point of view it might be desirable to substitute a less intensely stimulating economic régime. (See page 114.) But we must not overlook the fact that even in the wealthiest of our modern societies, an equal division of wealth would mean only a small share for each member of society. It would therefore be imprudent or at least untimely to adopt a system of distribution that would curtail production. What would be the good of distributing wealth more equally, if all men were thus made poorer than they are now?

Secondly, it violates no one's right of free initiative. The distributive process, founded on free competition and on the law of demand and supply, does not call for the intervention of a distributive authority; the legislator is not asked to make the division of wealth, since everybody determines his own share by creating it. If the government must intervene, it should be only to check any possible disturbances of the economic mechanism, not to put it in motion. The economic forces, as we have explained, are adjusted automatically, spontaneously. This is a great superiority, which no other system appears to possess, not even those that are theoretically perfect. Admitting for a moment that we might discover the ideal rule of distributive justice, could this ideal rule be made to operate of itself and by its own agency? Would it not require the intervention of some authority to apply it and to give to each participant in production his share of the proceeds, just as a mother gives each of her children a piece of pie as large as each of them deserves? Would not the authoritative regulation of distribution necessarily involve the regulation of production and labor also? If the authority charged with the task of distribution measured out every one's share of the social product when the day of reckoning comes, could it during the rest of the time let everybody work or loaf at his own pleasure? It must be admitted that this is extremely unlikely.[1]

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[1] Socialists do not deny that the present "capitalistic" system has increased our productive energies enormously. They even emphasize the fact that this system will perish precisely because of so-called *overproduction*.

It must not be forgotten, moreover, that although justice is very precious, nay, inestimable, —*fiat justitia, ruat coelum!* —yet there are other very precious and noble things; and one of these is *liberty*. It would be too dear a price to pay for a more equitable distribution if we were obliged to sacrifice liberty to obtain it. Indeed, of what use would a better distribution be, if men could secure it only under a system of quasi-slavery?

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[1] It is true that under the present system the right of free initiative, though granted by law to all, really exists only for those who possess capital. The wage-worker, who is a mere "private" in the ranks of the industrial army, has little initiative or choice. Nevertheless, for a minority that is increasing and whose numbers we may hope will still further increase, this free initiative does exist in various degrees at the present time. Is it likely that any system of socialism or collectivism would secure liberty and free initiative to a greater number? Would socialism not be likely to withdraw it from the minority that now enjoy it?

The problem may therefore be expressed in these terms: How shall we apply principles of justice to the distribution of wealth without curtailing production and without sacrificing (but rather by developing) individual initiative and liberty? To accomplish this is certainly not impossible. Whatever the present state of this world of ours may be, and whatever defects we may discover in it, it at least does not possess the defect of being unchangeable; it is constantly being transformed, and no one with an unbiassed judgment can maintain that it is changing for the worse.

III. The Origin of the Right of Property

In civilized societies the right of individual or private property is the mainspring of the whole mechanism of distribution. It sets all in motion. But it is also the point of attack for all schools of socialism. We are therefore led to ask: What *is* the right of private property?

The classical economists, and even Pope Leo XIII, in his encyclical letter entitled *De conditione opificum*, define it as a man's right to the product of his own toil. Hence they regard it as realizing the formula, "each shall receive the product of his labor," or, at least, "each shall receive the value produced by his labor." Man would thus be the owner of all things created by his own activity, and his possessions would, in a sense, be the legitimate extension of his own personality. But the man who should attempt to make a practical application of this formula would be singularly disappointed. Let us, for example, make an inventory of a man's possessions, and question him with regard to the source of his property: "Is this house the product of your labor?" The answer would probably be, "No; it came to me from my parents." — "Did your labor produce this forest and these fields?" "No; they are not the product of any one's labor." — "Are these goods which fill your storehouses, or these crops in your barn, the product of your labor?" "No; they were produced by my employees." If all this be true, what, then, is the use of the definition given above?

Lawyers have been more accurate and more cautious. They define the right of private property simply by its attributes, without attempting to justify it. They regard it as the right exerted over a thing by one person to the exclusion of every one else. The usual definition of property is to the effect that it confers the possession, use, disposal, and enjoyment of a thing. There is no mention of *labor* in these definitions, and, from the legal point of view, this omission is perfectly logical. In antiquity, labor could not possibly have been regarded as a method of acquiring property, because labor was almost entirely slave labor. Even to-day, labor of itself involves only the acquisition of *wages*, not of property. The laborer can obtain property only indirectly; that is, by purchasing it with his wages.

In most legal systems, *occupancy* ordinarily is regarded as the primary fact underlying the right of property. This is, in fact, the truth; for, as has been well said, "appropriation precedes production, both historically and logically. Primitive races regarded, and often now regard, appropriation as the best title to property. . . . Priority of appropriation is the only title of right which can supersede the title of greater force."[1] Nevertheless, as occupancy figures only at the origin of property, and as it is not possible, in the veri-

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[1] W. G. Sumner, "What the Social Classes owe to Each Other," page 68. Concerning this same matter, President Hadley says, in his "Economics": "The earliest property rights were based on occupancy rather than on labor. They were a recognition of the power of the strong man to retain what he had seized, not of the right of the industrious man to enjoy what he had produced. We may fairly grant the claim of the socialist, that capital originated in robbery. In like manner, labor originated in slavery."

In antique societies occupancy was itself founded on conquest. The type fication of property claims, to go back to the beginning, it may be said that property is usually based on *prescription*, *i.e.* on immemorial or long-continued and uninterrupted possession. But prescription, like simple occupancy, is only actual possession, and is devoid of any justificative ethical value.

We must therefore simply regard private property as a historical fact. We shall most easily discover its nature by considering its attributes, and the objects which may become private property.

The present organization of society cannot be regarded as the logical development of an *a priori* principle. It is a product of history, the culmination of a series of very complex facts, of which some are more or less in accordance with, and others more or less contrary to, our idea of abstract justice. There is, at the basis of private property as at present constituted, an almost hopeless entanglement of occupation and conquest, customs and laws, labor and saving.[1]

IV. The Evolution of the Right of Property, with Regard to its Object

At the present time all wealth that can be appropriated — which excludes the air, the sea, running waters — may become the object of private property rights. In civilized communities almost all wealth constitutes some one's private property. This, however, has not always been the case. There was a time when the scope of private property was confined to a few objects. There is no doubt that at first it comprised only those kinds of wealth that in civilized coun-

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of quiritarian property at Rome was that which had been acquired *sub hasta*, *i.e.* by the lance.

[1] The extremely close relation between law, especially the law of property and economic organization, has been emphasized by Karl Marx and most scientifically studied by Rodbertus and by Professor Adolf Wagner, of the University of Berlin. (See the latter's "Grundlegung der politischen Œkonomie," zweiter Theil.)

tries have long ago ceased to be the object of property rights, namely, slaves and women. It also included objects of immediate personal use, — such as jewels, weapons, horses, — the individual ownership of which was evidenced by the custom of burying them with their owner in his tomb; indeed, slaves and women were often treated similarly.

Later, property came to include the home, — not as individual property, but as family property, — because the home was the abiding-place of the household gods, and these gods belonged to the family.[1] Still later, it extended to a portion of the land, and first of all to the land in which the ancestors were buried (because the ancestors were also a kind of family property). But, despite these beginnings, private property in land — the most important and almost the sole wealth of the ancients — was established very gradually.[2] When we take up the study of land-rent we shall see how land in turn came to be regarded as an object of the right of property. In fact, even now, not all land has been appropriated; unowned areas are at the present time being brought under the dominion of property rights by way of colonization, occupancy, and preparation for cultivation. But the time is not far distant when private property will extend over the whole earth, and to all objects that are capable of being appropriated.

Different kinds of property have successively played a dominant part in the history of mankind. Among pastoral tribes, cattle is the most important property; under feudalism, land; and in the era of steam, coal mines. Private property has, in our own times, been extended to a multitude of new objects of which our ancestors knew nothing. Among these are: (1) So-called invisible property; that is, credit claims or shares in the stock of industrial enterprises, represented by mere pieces of paper that can be slipped into a pocket-book, and which to-day constitute a most convenient and desirable kind of wealth; (2) works of literature, science, and art, which have become the object of property under the name of copyrights and patents.

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[1] Consult Coulanges, "The Ancient City."

[2] "Private possession, beginning with movables, extends itself to immovables only under certain conditions. We have evidence of this in the fact named by Mayer that the Hebrew language has no expression for *landed property;* and again in the fact alleged by Mommsen of the Romans that the idea of property was primarily associated not with immovable estate but with estate in slaves and cattle (*familia pecunia que*)." — HERBERT SPENCER, "Sociology," Part V. The word *mancipatio* evidently presupposed some movable object.

It is possible that in the future individual property will adopt forms and be applied to objects and relations of which we have to-day little or no conception.[1]

V. The Evolution of the Right of Property, with Regard to its Attributes

The right of property has two characteristic attributes: *perpetuity* and *free disposal.* Deprived of one or the other of these characteristics, it becomes only the right of possession or the right of usufruct.

The *perpetuity* of a property right evidently means that the right shall last as long as the object to which it extends. As it lies in the nature of property to attach to some concrete object, its duration is measured by that of the object itself, and not by that of the proprietor. There are many things which cannot last long and which are intended to be consumed almost immediately; for such objects as these, the right of ownership will be ephemeral. But there are also objects of long duration, and there is one kind of wealth,—*land*,—the duration of which has no limits save those fixed by geological conditions. Hence, the right of property in land is *sui generis*, and involves economic consequences that are, as we shall presently see, of capital importance. There are, however, other objects which, by means of legal ingenuity, have acquired a quasi-perpetuity; examples of these are so-called "perpetual government loans."

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[1] A law was recently passed by the state of Connecticut, entitled "An Act to prevent the stealing of electricity." Our present copyright laws are practically laws against stealing ideas.

Inseparably connected with the perpetuity of the right of property is the right of legacy or *inheritance;* for when the owner dies and the object continues to exist, there must be some one to take his place as master of it. As long, of course, as property is vested in the family there can be no interruption or break in its ownership; for the family constitutes a moral person whose existence is perpetual, precisely like the modern "corporation," which is said to be "immortal." When, in the early history of law, the property of the family passed apparently from the father to the children, this was by right of *continuation* and not by right of *succession* properly speaking. When men began to regard property as individual, its transfer to the children of the deceased was expressly provided for by law and was made obligatory upon the parents and sometimes upon the children.[1] This was merely a somewhat altered form of family property; often the property was legally transferred to the nearest relatives by so-called inheritance *ab intestato.*

From the view-point of the distribution of wealth, the perpetuity and inheritability of property result in the ownership of wealth by persons *who have not produced it,* — wealth which must be regarded as the product of the labor of their ancestors in a more or less obscure past. Thus the optimistic principle that everybody gets the exact equivalent of the product of *his own* labor is of questionable validity.

The other essential attribute of the right of private property is, as we have said, the right of *free disposal.* Roman law put this forcibly by defining the right of property as the *jus utendi, fruendi, et abutendi;* the French Civil Code defines it as "the right to enjoy and to dispose of things in the most absolute manner." But this right to dispose of a thing as one pleases, which confers upon ownership an absolute character so inherent that we can scarcely conceive of ownership without it, did not always exist. Ownership has gradually been widened in its connotation, and in this respect has undergone the same evolution as the objects of property. From the legal point of view, the claim of the Romans to glory consists in having first given the right of property this sovereign attribute; it was subsequently somewhat attenuated, under the influence of Germanic laws, and again introduced into those systems of modern law which were influenced by the French Revolution.

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[1] Even when the right of succession *ab intestat* had been established at Rome, the members of the owner's family, who were called upon to assume ownership, were designated as *heredes necessarii* (obligatory heirs).

So far as we can conjecture, the order in which the right of private property successively acquired its essential attributes was as follows: —

(1) Probably the first property right was that of *exploiting* one's possessions, that is, making them yield something for the owner by means of the labor of others, — formerly by the labor of slaves, and subsequently by the labor of free wage-workers (employees). This was originally the *noble* attribute of property, inasmuch as it dispensed with the owner's need to work.

(2) The right of *gift*, at least in the case of movable objects, seems to have been one of the oldest ways of making use of wealth and anterior even to the right to sell. (See page 184.) And, indeed, if the owner has the right to consume a thing for his own gratification, why should he not have the right to let another person consume it? If he possesses the right to destroy it, why should he not be permitted to give it away? Is not the noblest and most enviable privilege connected with ownership the right to confer its benefits on others?

(3) The rights to *sell* and to *rent* seem to have sprung up much later. In the fourth century before Christ, Aristotle declared that these were necessary attributes of the right of property; but he does not seem to imply that they

were generally recognized at that time. In fact, there are many reasons why they should not have been recognized. As long as property was vested in the family and bore the imprint of religious consecration — and this was the marked characteristic of antique property — the transfer of ownership was not sanctioned; at all events, it constituted an act of impiety on the part of any member of the family. Moreover, exchange and the division of labor did not yet exist; each family sufficed unto itself; movable objects of property were few in number. Hence every one kept these objects permanently; sometimes they were buried with the owner. Under these circumstances, sale could be regarded only as an exceptional and abnormal act. Accordingly, when sale is first introduced, we find it solemnized by extraordinary ceremonies, and partaking of the nature of a public event. By the law of Rome, *mancipatio* (the transfer of property), had to take place in the presence of five witnesses representing the five classes of the Roman people.[1]

(4) The right *to bequeath*, which has always been regarded as the most important attribute and the crowning feature of the right of property, (because it prolongs this right beyond death), was even slower in becoming a part of the right of property.[2] This right, moreover, came into conflict with the right of family inheritability to which we have already referred; and it obviously could not have been recognized until property had entirely lost its family character and become thoroughly individual. There is reason to believe that even at Rome, where individual property was ultimately so vigorously developed, the father of the family did not have the

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[1] The same is true in Germanic law. The Ripuarians in the sixth century required that sales take place *in mallo*, *i.e.* in the assembly of the people.

[2] "The right freely to bequeath indicates the greatest scope ever accorded to individuals in the history of civilization." — MAINE, "Ancient Law."

Many modern systems of law provide that the father cannot disinherit certain relatives — especially the wife and children. This is, of course, an infringement on the right of absolutely free disposal, and is evidently another trace of the old family conception of property.

right to bequeath until the establishment of the Law of the Twelve Tables (450 B.C).[1] The solemnity which accompanied the act of bequest clearly indicates that it was not an everyday performance.

When the right of property has acquired these four characteristics, it may be regarded as complete, and then it constitutes the very basis of distribution.

Inheritability, gift, and legacy, taken together, make it possible to possess wealth without having performed any labor. They facilitate its transmission to those who have not worked for it. On the other hand, the right of property creates a class of "disinherited." In the course of time, and as the result of accumulation by inheritance, it increases the economic inequalities among men.

The power to lend, to lease, or to rent property, gives rise to a division of society into two classes — creditors and debtors — whose conflicting interests are a menace to social peace and order. It results in the creation of a new way to live without working, viz. living on an "independent income."

The right to utilize property exploitatively, *i.e.* to employ other persons, gives rise to another division of society into two classes: that of wage-workers, who labor in the service of others, and that of employers, who, in appearance at least, appropriate part of that which is produced by the laborers in their employ. Thus the right of private property insidiously prepares the way for the conflict between labor and capital.

The right to sell, finally, transforms the ownership of the product into the ownership of the value of the product. (See page 184.) This attribute of private property subjects it to all the fluctuations of demand and supply, all the unfortunate or fortunate whims and fancies of public taste and fashion, all the contingencies of the market; property, in a word, acquires that conditional, instable, doubtful form which characterizes wealth in modern society. (See page 47.)

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[1] According to De Coulanges, the right to choose heirs dates, in Athens, from the time of Solon (sixth century B.C.), and in Sparta only from the beginning of the fourth century before Christ.

Three of these effects of the right of private property appear particularly objectionable from the standpoint of social justice. The first is the extreme *inequality of wealth.* The second is the *right to be idle;* this right is possessed only by the favored few, and is a consequence of inheritance and independent income. The third is *pauperism.* Let us examine these three objectionable consequences of the right of private property.

VI. The Inequality of Wealth

The inequality of wealth has ever led the poor to complain bitterly; and their enmity for the rich, as old as the world itself, has given rise to *socialism.* Without doubt this state of affairs is due partly to an unworthy feeling of envy, which is natural to man, and which makes him impatient of superiority in his fellow-creatures, whether that superiority be one of talent, character, beauty, intelligence, or even of health or virtue. If, however, there were only this element in class hatred, it would be reasonable to hope that some day education and moral progress will ultimately destroy it. But it has a deeper foundation than the foolish sentiment of envy; namely, the feeling of violated justice. This feeling, moreover, deepens and increases with our growing knowledge of moral laws.

Numerous attempts have been made to reach a statistical statement of the inequality of wealth and of incomes. Mr. Thomas G. Shearman[1] estimates that in the United States 1.4 per cent of the population own 70 per cent of the wealth: 9.2 per cent of the population own 12 per cent of the wealth, and 89.4 per cent of the population own only 18 per cent of the wealth.

Somewhat more official is the estimate of Mr. G. K

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[1] In the *Forum* for 1889 and 1891.

Holmes, expert on wealth statistics for the Tenth Census. Mr. Holmes found that 0.3 per cent of the people own 20 per cent of the wealth; 8.97 per cent of the people own 51 per cent of the wealth, and 91 per cent of the people own only 29 per cent of the wealth.[1]

The Massachusetts Labor Bureau reported in 1894 that estates of $50,000 and over aggregate 55 per cent of the total amount of property, while estates of less than $5000 aggregate but 11 per cent. Another authority, Dr. C. B. Spahr,[2] reaches the conclusion that whereas less than half the families in America are propertyless, seven-eighths of the families hold but one-eighth of the national wealth, and one per cent of the families hold more than all the rest.

The state of affairs in Great Britain is, according to the same writer, even worse from the viewpoint of an equal distribution of wealth. Nearly 6,000,000 families, or more than three-fourths of the people of Great Britain and Ireland, have no registered property whatever. They have, indeed, their household goods, but the total value of these can hardly exceed $500,000,000. Less than 2 per cent of the families hold about three times as much private property as all the remainder; and 93 per cent of the people hold less than 8 per cent of the accumulated wealth.

The following circumstances appear to justify the feeling that social justice is violated: —

(1) The present inequalities of wealth *do not appear to be natural, but artificial.* Unlike physical, mental, and moral inequalities, differences of wealth do not seem to be gifts of nature that we cannot change for better or for worse, but the unforeseen result of a specific social organization and of economic institutions (such as property and inheritance) established and maintained by certain social classes.

This opinion is well founded as far as antique societies are concerned, and is still valid with regard to some modern nations, — England, for example. In that country the law (and one may even say brute force) originally placed half the soil of the British Isles in the hands of a few hundred families, and forcibly keeps this property in the same hands by transferring it *de jure* to the oldest son, who is not allowed to sell or to mortgage his estate, and who is obliged (if need be, in spite of himself) to retain a privileged social position whence he may not descend and to which others are not permitted to rise.

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[1] *Political Science Quarterly* and *Journal of the Royal Statistical Society.*

[2] "The Present Distribution of Wealth in the United States," New York, 1896.

But it is not true in democratic countries like France, Switzerland, and the United States. It cannot be said in these countries that the wealthy are made rich solely by the laws. It would, to be sure, be absurd to go to the other extreme and declare, as Franklin did, that they owe their wealth to no other source than "labor and economy." But it must be admitted, as a general rule, that the men who lay the foundations of large fortunes possess certain exceptional qualities; these uncommon qualities are not necessarily moral, but those which insure victory in the struggle for life.

Only, while admitting that inequalities of wealth are generally allied with natural inequalities, we must recognize that the former are infinitely greater than the latter. Here, let us say, is a man who is "worth," as the popular expression puts it, $200,000,000; that is to say, at least 20,000 times as much as the most expert workman. Now no one will believe, not even the millionnaire himself, that he is 20,000 times as capable as the workman. If there were some device for measuring the moral and intellectual abilities of men, it would doubtless be easy to ascertain that these abilities are not commensurate with the inequalities of riches, but are often entirely different from them in degree. There is no question that great wealth is frequently found closely allied with the possession of certain qualities of initiative, audacity, and perseverance, — the qualities that lead to triumph in worldly matters, — and often with what may be called good luck; but, at all events, this wealth is by no means proportionate to the "painstaking," that is, to the conscious productive effort, of the owner. On the contrary, it would appear, as John Stuart Mill has remarked somewhat bitterly, that the reward declines as the labor becomes more painful, until it reaches a point where the hardest work scarcely supplies the bare needs of existence. Still less do these inequalities seem proportionate to the merits or virtues of men. The contrast between the poor honest man and the wicked but happy rich man is a commonplace that dates back to the time of Job, but is as striking to-day as ever.

(2) Natural inequalities harm no one. Intelligence and beauty are, in those that possess them, not attributes of which others have been deprived; nor does their possession by the few make others either stupider or uglier. It is held, on the other hand, *that the wealth of the rich is created by plundering the poor.* The whole effort of modern socialism is directed toward the demonstration of this thesis.

We do not, however, regard it as well founded. To be sure, we cannot deny that all great fortunes are created by taking a part of the proceeds of the labor of others. But we shall see presently that this appropriation is not necessarily robbery. Although too many fortunes are based on robbery, there are less of them now than in antique societies, when the conquest of land and the custom of slave labor — two aspects of robbery — were regarded as the normal source of all riches.

But it is nevertheless true that economic inequalities are much more pronounced than natural inequalities, and their social consequences more far-reaching for good or for evil. Economic inequalities involve a whole series of other inequalities, which make us feel them more keenly and which greatly increase their importance; they ultimately constitute the dominating influence in the physical, political, intellectual, artistic, religious, and moral life of society.

Statistics show that the average duration of life is twice as great among the rich classes as among the poor and that, by a cruel irony of fate, the poorer a man is, the greater is the tribute that he must pay to disease and death.[1] Nor is this the worst result of poverty. The poorer a man is, the greater the temptation to vice and criminality. Statistics show that the criminality of the poorer classes is greater than that of the well-to-do. Modern science has entirely exploded the old saw that poverty goes hand in hand with health and virtue. The poor no longer have even this consolation!

Wealth provides its fortunate possessors not only with gratification of all kinds, (that would be a matter of relatively small importance,) not only with longer life, health, independence, leisure, and refinement (which are all very important), but with great power in all the fields of human interest and activity. "Plutocracy" is nothing new; but it seems that the dynasties of our so-called "steel kings," "cotton kings," and "coal barons" tend to gain possession of a power greater than that which in former times was due to nobility or courage, or that which in modern times is possessed by men of learning or of genius.

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[1] Professor Leroy-Beaulieu, in his book on "La Répartition des Richesses," attempts to develop a contrast, a sort of compensation, between the evils that result from indigence and those due to disease or moral suffering: "What is the number of indigents when compared with that of the number of human beings who suffer from physical infirmities, and incurable or organic diseases like scrofula and consumption? What, above all, is their number when compared with the still greater number of persons who are tormented by poignant mental suffering? Indigence is certainly an evil, but for the thoughtful mind it is one of the lightest and least general evils that afflict civilized society." The eminent economist forgets that poverty is itself a cause of "poignant mental suffering," and a very important cause of "scrofula and consumption." Fate has not placed these two classes of evils that afflict mankind in *opposite sides of the balance*, but, on the contrary, appears to have placed them *on the same side*. The poor quarters of our cities contain a much larger proportion of consumptives than the wealthy districts. The laborers' sections of Paris, for instance, have ten times as many consumptives as the quarter of the Champs-Elysées.

Numerous statistical calculations made in England indicate that the average duration of life among the rich classes is between 55 and 56 years, whereas for the working classes it is as low as 28 years. In Paris the general mortality in the rich quarters of the Champs-Elysées is 10 per thousand, and in the Montparnasse quarter it is 43 per thousand. In London the figures are still worse: the Board of Health reports that the mortality varies from 11.3 per cent in the rich residences to 50 per cent in the homes of the very poor.

In the domain of social, political, and moral influence, the extraordinary effects of the possession of a large amount of money appear so entirely incommensurate as to be extremely objectionable.

(3) Finally, this inequality of wealth becomes more unbearable when we consider that all the other inequalities which formerly separated men are gradually being abolished. Civil equality has been established by law, universal suffrage means political equality; the wider diffusion of education tends even to establish a kind of intellectual equality. Only the inequality of wealth remains. Whereas this inequality was formerly disguised, so to speak, by other inequalities of a higher order, to-day it stands alone, sharply defined, and naturally arouses widespread antagonism.

An investigation of these three objections does not lead to the conclusion that all inequality of wealth should be abolished. For, in the first place, it would be *impossible* to do this, at least until we succeed in suppressing those natural and innate differences between individuals of which the inequalities of wealth are simply the incommensurate consequences. Nor, in the second place, does it seem *desirable* to do away with the inequality of wealth, at least until human societies have entirely traversed the progressive and experimental phase of their development. Economic inequality acts as an incomparable stimulus to production. It keeps all men on the alert, from the bottom to the top of the social ladder, by offering the prospect of gradual advancement. It gives individual initiative the greatest possible scope by permitting the concentration of enormous capital in the hands of those who are capable of using it to the best advantage It gives rise to an abundant variety of human activities, and the widest conceivable range of wants and desires. Men desire wealth ardently, not so much because of the *pleasures* as of the *power* which it procures. And power involves inequality.

But in order that the inequality of wealth shall satisfy the above conditions, it must as far as possible be *proportionate to the values created* by its owners, or to the services rendered to society. The ultimate aim of all social reform is to achieve a closer relation, a parallelism, between riches and productivity or social service.

The logical consequence of this condition seems to be that wealth must not be *inheritable*, for if it is, it is not the recompense of personal effort. But it should be noted that although the inheritability of wealth does not stimulate the labor of the children, it does stimulate that of the parents. At all events, there is nothing *sui generis* about the inheritability of economic inequality, inasmuch as natural inequalities, — health or disease, strength or weakness, beauty or homeliness, often talent or stupidity, and, in all cases, the family name, which is frequently a help or a hindrance in itself, — are also transmitted by heredity. We shall have occasion to refer again to this point.

Yet we are perfectly willing to admit that *perpetual* inequalities are extremely unfortunate, because they create class distinctions. They discourage those who are placed low in the social ladder, by depriving them of all opportunity to rise; and they conduce to inactivity among the wealthy because wealth induces a feeling of permanent security in those that possess it. Great permanent differences of wealth break the ties of social solidarity, and create a chasm between Lazarus and Dives across which no bridge can be built. Those that are poor cease to work, because it seems useless; those that are too rich abandon all productive effort because they no longer need to work. These economic extremes engender two evils which have afflicted society so long, — *indo-*

lence and *pauperism*, — both of which lead to unproductive consumption. By creating, at the top and at the bottom of the social ladder, two classes of social parasites, extreme inequality works precisely contrary to natural selection, the beneficent effects of which are so often glorified by optimistic economists.

But differences of wealth are unlikely to have this enduring character except in communities where they are defended and aggravated by the laws, — as, for example, in England. In democratic communities, inherited fortunes do not usually remain long in the possession of incapable persons.

VII. The Right to be Idle

In all societies, savage as well as civilized, — and especially in the former, all statements to the contrary notwithstanding, — there are persons, usually a minority, who do nothing. But although they do not work, this does not hinder them from living, or even from living very comfortably. Ordinarily, it is among people of this class that we find the largest incomes. Not only are these incomes often larger than those due to labor, but they possess the great advantage of being more regular. In all kinds of weather, and no matter whether the recipient is in good health or not, no matter whether he is young or old, no matter whether he stays at home or spends his time and money travelling round the world, his income always reaches him. When a man possesses this advantage he is said to "live on an independent income," that is to say, his income is assured and he need not pay any attention to the problem of earning a livelihood. The possession of an independent income assures two privileges which are superior to all the enjoyments that wealth of other kinds may procure; namely, security and independence. Certainly these are valuable possessions, and we may well ask the happy mortals who enjoy them what good fortune has made their lot so pleasant, *Deus vobis haec otia fecit?*

To give a complete answer to this question would require an investigation of the origin of the various classes of income, especially of interest and land-rent; and such an investigation, which we shall attempt further on, would establish the principle that *the man who receives an independent income lives on the product of past labor.*

When this income may be regarded as the result of *his own* past labor, as, for example, the pension received by a retired public official, or the income received by any one who has "put aside something" for his old age, there can be no reasonable objection to it. We cannot insist that a man must work throughout his entire life. If he has worked faithfully during the productive period of life, it is just and proper that he be permitted to take a rest during the unproductive period. Even socialists, such as Bellamy in his "Looking Backward," declare that under the collectivist régime a man of forty-five years should be relieved of all work for society and thereafter be permitted to do what he pleases and live upon an income provided by society.

But when this past labor was the labor *of others*, *i.e.* of some immediate or remote ancestor, or even of some non-consanguineal benefactor, who created a fortune at some time in the past and left it to the subsequent possessor with the right to consume it in idleness, — the question is a more embarrassing one and implies the solution of the difficult problem of *inheritance.*

From the purely economic point of view this problem doubtless is easy to solve. We have already compared money to "orders" for consumption or claims to goods, giving the owner the right to obtain a certain quantity of wealth, indicated by the value of the money. Suppose that a man has earned by his labor a large number of these "orders." If he does not care to use them himself (now or at some future time), he can transfer them to some one who will use them in his stead. Obviously, he has a perfect right to do this. (See page 220.)

But from the moral point of view the problem is a more difficult one. It may well be held that the idle property-owner who lives on an income due to the labor of others is not "squared" with society by simply paying the price for the goods that he has consumed. It may be maintained that it is not sufficient for him to exchange only money, — that is to say, the product of the past labor of others, — but that he should also make some return in *present* services of his own, representing the equivalent of the income which he receives. The goods that he consumes from day to day are the products of *present* labor, not of labor long past, and justice would seem to demand that in exchange for what his fellow-creatures are doing for him he should be required to do something for them. A classical economist has said that "the man who lives upon an independent income is an employee who has been paid in advance." If he has been paid *in advance*, this implies that he still owes a certain amount of labor. He should, as the term goes, "make himself useful." If he is of no service, economists will in vain show that he furnishes a full money-equivalent for all that he obtains; his lot is nevertheless that of a social parasite.

It cannot be denied, however, from the historical point of view, that the so-called idle rich have in the past performed a genuine social function, a social function of the very first importance; namely, the creation of the arts, the sciences, literature, politics, refinement, and culture, — everything, in a word, that constitutes civilization. We owe all these things to the idle rich of Greece, Rome, Judea, and of all those antique societies in which it must be admitted that idleness possessed the particularly odious characteristic of being due solely to force, robbery, and slavery.

But will this always be the case? In order to take proper care of the great interests of society, to unravel the fine threads of diplomacy, to hold the reins of government, or to carry worthily the sceptre of taste in the kingdom of arts and letters, shall we always have need of delicate hands that have never been hardened by labor, and of minds that have never felt the burden of a binding duty or the necessity to earn a living?

Socialists assure us of the contrary. They hold that all the necessary and desirable social functions can and will be performed and rewarded even in modern democratic societies. They insist that all public servants, including all those persons that perform useful social services of any kind whatsoever, should be paid for these services. Admitting, furthermore, that certain intellectual or philanthropic work should remain gratuitous, they hold that the socialistic organization of society will provide everybody with sufficient leisure, when his own work is done, to look after these matters in perfect freedom.

There is no doubt that we should endeavor to assure to all persons a certain amount of leisure, not in order to enable them to remain idle, but to make them free to participate in all those liberal activities (using the term "liberal" in its etymological meaning) which are both a duty and an honor. This arrangement would remove the objections to the division of labor. (See page 181.) It is obvious that when a sufficient amount of leisure is assured to all, there will be no excuse for the existence of a special class of idle rich. Hence the reduction of the hours of labor is, from this point of view, one of the most unquestionable achievements of the nineteenth century. But there still remains much to be accomplished in this direction.

VIII. The Right to Relief

The inequality of riches not only creates a class of idle property-owners, who live on their incomes, but it also gives rise in all countries to a more or less numerous class of idle dependents who cannot or will not live by their own labor, and who consequently live on alms, *i.e.* on private or public charity.

There are three possible reasons why people do not work: —

(1) They may not have the *strength* to work. This is the case with young children, the aged, and all those who suffer from chronic diseases or permanent infirmities.

(2) They may not be *willing* to work. All labor involves effort. Rather than make this effort, and, above all, rather than be subject to the discipline which every kind of labor involves, many prefer to risk suffering want. (See page 82.)

(3) They may be unable to find the *means* or the *opportunity* to work. It is not enough for a man to be willing and physically able to work. He must have tools and material at his disposal; and as these can usually be obtained only from so-called employers, the laborer must find some one to "employ" him.

What should society do with regard to these three classes of dependants? It cannot escape the problem of making some provision for them.

The first class should be taken care of, because *society as a whole should feel a certain degree of responsibility for all its members.* Under normal conditions the family should of course support those of its members who are unable to provide for themselves. But under the present social system the members of the family are frequently scattered far and wide. Sometimes, even (as in the case of illegitimate children), there *is* no family. In other cases it is advisable to take children away from parents who pervert them or who simply regard them as a source of profit. How often, on the other hand, it would be well to take the old people away from their own sons and daughters who maltreat them! If civilized society must let its young or its aged members die of hunger, would they not be better off in that savage state of society in which the old and the indigent were treated with veneration and love, or mercifully strangled in order that they should suffer no longer?

Society must care also for the second class, because it constitutes a *public danger.* The army of crime is recruited from this population of vagabonds and beggars. When they commit an offence, society is obliged to house and feed them in jail; and as the support of a prisoner is a matter of considerable cost, it is more prudent and more economical to reduce crime than simply to punish it.[1]

Society should also give attention to the third class, because it is to some extent *responsible* for their misfortune. The economic constitution of society involves an unnatural separation of the workman from the instrument of labor, and places him under the necessity of working for others in order to gain a livelihood. The very law of progress —as illustrated by large-scale production, mechanical inventions, international commerce, and competition — causes unemployment and crises. (See pages 113 and 142.) It is therefore just and proper that society, which as a whole profits by each step of economic progress and which in the battle of life reaps all the spoils of victory, should also bear the unfortunate consequences of progress and come to the help of the injured and the vanquished.

The claim which these various classes have upon society may be called *the right to relief.* Socialists, however, are not fond of this expression. They regard it as humiliating, and prefer to employ the term *right to existence*, or, when speaking of able-bodied dependents, *right to work*. These are ostentatious words, but at the bottom they mean nothing more than a claim upon society, *i.e.* upon one's fellow-citizens, to provide the means of existence. To ask our fellow-creatures for help because we are unable to take care of ourselves, always constitutes, no matter what name we care to give it, a request for relief. But there is nothing humiliating about such a request; for there is not one of us but has constant need of the help of others.

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[1] In a paper on the "Cost of Crime," prepared by Mr. Eugene Smith for the National Prison Association, the statement is made that the cost of crime in the city of New York, in city and county taxes, is over $20,000,000, out of a total public expenditure of $90,000,000. Thus the cost of crime in New York averages $6 for each individual of the population. In most cities it is probably less than this, but in many of them it exceeds $3 per capita. Mr. Smith reaches the conclusion that for the whole United States the annual cost of crime is $200,000,000. This exceeds in amount every other object of public expenditure except only that of our military establishment in time of war. The cost of public education throughout the whole United States, according to the census of 1890, amounted to $139,000,000. This is the item that most nearly approaches the cost of crime. It should be remembered, moreover, that this estimate of $200,000,000 represents only the outlay for the punishment of crime, and by no means includes the damage due directly or indirectly to criminal conduct.

Only, when we use the expression "*right* to relief," we must admit its full purport, and recognize that it implies an obligation on the part of society, — not only a *natural*, but a *legal* obligation. Many economists regard relief as a social duty, but not as a right possessed by the dependent. This, however, is legal sophistry. Whenever a person happens to be placed under those conditions which call for intervention and which are carefully stated by law, society should not be permitted to escape the duty to help him. The expenses necessary to accomplish this object should form a part of the regular expenditure of the nation or the municipality. When this is the case, we speak of *legal relief* as opposed to *optional relief*.

It is true that relief, especially when regulated by law as part of the public administration, and still more especially when it constitutes a "right" belonging to the needy, involves grave dangers. These dangers have been brought out by all the classical economists, but by none of them with more vigor than by Malthus. The objections which they urge may be summed up in the familiar formula: *The number of dependents tends to increase in direct ratio to the aid they count upon receiving*. The reasons given for this formula are the following: —

(1) The right to relief puts a *premium on improvidence*. Many persons who might have succeeded in surmounting the difficulties of life, had they depended entirely upon themselves, neglect to provide for their own future or for that of

their children when they learn to depend upon public succor for themselves and their offspring. The farm-hands say in England:—

> "Hang sorrow and cast away care!
> The parish is sure to find us!"

(2) The right to relief causes a *rapid increase of population among the dependent classes.* Paupers need have no anxiety with regard to the support of their offspring, since they are not required to rear them. A large family, on the contrary, means additional gain, inasmuch as resources are usually distributed according to the number of children belonging to the family. Hence the government is obliged to pay a bounty, as it were, to the most prolific dependents. Thus there is formed, in the lowest depths of society, a large class of paupers whose names are all inscribed upon the records of public charity, and who become the permanent beneficiaries of the public. Generation after generation they transmit their claims on society as well as their vices, and continue a despised race, too degraded to be dissatisfied with their lot or to attempt to rise above it.

(3) The right to relief *burdens the productive classes of society for the sake of the unproductive classes*, and interferes with the law of natural selection which tends toward improvement by enabling the superior to triumph over the inferior. It is obvious that the pauper classes cannot be regarded as the healthiest or the most vigorous part of the social organism. Society provides for their relief by means of taxes, that is to say, by deducting a share of the product of the labor of those who are able to produce. As the class of dependents tends to increase most rapidly, the tribute which they exact from the laborious classes constantly grows more burdensome, and may ultimately drag the laborious classes likewise into the depths of poverty.

Although the above arguments show that we cannot be too careful in the administration of public relief, they must not lead us to ignore the bond of social solidarity which unites all mankind. No one, in fact, denies *all* responsibility of society for its members; the real problem is one of degree.

We must admit that the prospect of regular help from the public treasury may tend to curtail productive activity and saving. But cannot the same be said with regard to the wealthy classes which we have considered in the preceding pages? Does not the prospect of inheriting a large fortune, or the possession of a large amount of interest-bearing securities produce exactly the same unfortunate result as the certainty of public assistance?

We must also admit that the birth-rate is higher among dependents than among the classes that support themselves; but if the children of the former can be made useful citizens, they should be regarded not as a danger but as a gain, especially in view of the fact that among the rich the birth-rate is rapidly decreasing.

It is true, finally, that the maintenance of all diseased, infirm, defective, or lazy persons may be prejudicial to the economic evolution of society. But moral advancement is quite as important as economic progress, and moral advancement would be sacrificed if society should pitilessly exterminate all these persons.

We must, furthermore, carefully bear in mind that a well-organized system of public relief does *not* increase the number of dependents. At the present time public charity and relief is more effectively and scientifically organized than ever before; never have its resources been greater; never has its scope been wider. Yet the proportion of dependants has not increased. On the contrary, it has decreased in all countries, especially in England, despite the fact that England is regarded as the very type of a nation in which public relief is established by law, and despite the fact that England served as the special theme of Malthus' most pessimistic predictions.[1]

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[1] The number of those that receive relief in England, after having increased at a startling rate and reaching, in 1849, 63 per thousand (one dependent for every sixteen persons in the country), has now fallen to 23 per thousand (one for every forty-three persons).

To-day the remark is often made, especially by socialists, that the day of public and private relief and charity is past, and that their place will be taken by *insurance*, — insurance founded either upon mutual association or upon government coöperation. Certainly this would be desirable. An organized system of insurance against sickness, against loss of employment, against the untimely death of the head of the family, and against all those misfortunes to which workingmen are exposed, would certainly result in the suppression of almost all the economic causes of pauperism. But there would still remain the moral causes — such as drunkenness, laziness, and prodigality. Will *better education* ever remove these causes? We can at the most only *hope* that it will.

The unfortunate effects of public, legal relief are reduced to a minimum when it is organized on the following principles: —

(1) It should be administered by the *local* authorities. The municipality is much better able to distinguish the deserving from the impostors, and is usually more economical with its funds.

(2) It should be granted by *special institutions*, which should, if possible, be divided into three classes corresponding to the three classes of social inefficients mentioned above. Legal relief cannot attempt to go to the homes of the needy to distribute its funds or provisions. As far as help at the homes of the needy is concerned, legal relief can only supplement private charity and make it more systematic. The celebrated *Elberfeld system* owes its superiority to the successful alliance of public and private charity.

(3) It implies, finally, the *strict prohibition of mendicancy*. For if impecunious persons can procure help without working, simply by begging, no rational system of relief can hope to succeed.

CHAPTER II — THE SOCIALISTIC SYSTEMS

As the present method of distribution seems unjust from many points of view, men have long been in quest of some better, more equitable method. This quest has given rise to the numerous systems of socialism.

It must be noted that socialists do not object to the present system solely from the viewpoint of distribution and of distributive justice. They would transform the entire system of production and exchange. Fourier, for instance, cares less for the means of effecting a better distribution of wealth than he does for the best way to increase the supply of wealth. Karl Marx regards all systems of distribution, past or present, simply as the necessary outcome of prevailing methods of production.

Yet a brief investigation of the various systems of socialism seems most properly to belong to this book on Distribution because all of these systems are, fundamentally, phases of the perpetual war of the poor against the rich.

In the first part of this book we outlined the general principles which are common to all schools of socialistic thought (see page 28), and we shall now point out the distinctive characteristics of the principal systems of socialism, especially those which advocate one of the following four principles of "equitable" distribution: —

(1) Every one should have an equal share of the social product.

(2) Each person should receive according to his wants.

(3) Each person should receive according to his merits.

(4) Each person should receive according to his work.

Let us examine each of these in turn.

I. Equal Sharing

This childish system of distribution seems to have prevailed in the very remote past, inasmuch as all the antique lawgivers whose names have been handed down to us by history or by legend — Minos, Lycurgus, Romulus — appear to have divided the land among the people, giving an equal share to each person, or at least to each family. As this original equality was necessarily destroyed in the course of a few generations, it had to be reëstablished from time to time by new divisions. In primitive communities comprising only a few members and having but one kind of wealth — land — such a system as this was possible. But in modern societies like our own it would be absurd. To-day there are, as a matter of fact, no advocates of equal sharing — not even among revolutionary socialists.

There is nevertheless still a trace of this naïve idea at the basis of socialistic systems. They take it for granted that in all civilized societies there is more than enough wealth to satisfy the wants of all, and that there are destitutes among us simply because the rich have despoiled the poor. All we need to do, therefore, is to take back that part of the social product which the rich have unjustly appropriated. Revolutionary socialists would do this simply by expropriation; moderate socialists would accomplish it by means of progressive taxation. This, at all events, is certainly the popular sentiment among socialists.

In all countries, however, the rich constitute a small minority. Society has often been compared, with regard to the relative numbers of rich and poor, to a pyramid, the apex of which represents the wealthiest persons, and the base the poorest classes.[1] Even if the incomes of the rich were divided among all the people, no one would thereby become opulent. If we destroyed the highest mountain range in the country, and spread it out over the whole continent, the earth's level would not be raised more than a few inches.

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[1] Vilfredo Pareto, in his "Cours d'Économie politique," has given a vast amount of statistical data regarding the past and present distribution of wealth, and prepared what he calls "the curve of incomes." This curve confirms the illustration of the pyramid, but rectifies it to some extent by means of

It is not sufficiently borne in mind that the existence of so many persons possessing but a small amount of the world's goods does not necessarily prove that wealth is poorly distributed. It proves rather that there is not enough wealth for distribution. What makes this problem difficult is not so much the unequal distribution of wealth — this difficulty might easily be remedied — but the *insufficiency* of wealth.[1]

We have already defined wealth (see pages 48 and 49) as including all that mankind believes to be useful and can utilize, reserving the term "services" to designate all the acts of man that are capable of directly furnishing enjoyment. We have, furthermore (page 184 ff.), pointed out that wealth is usually estimated according to its exchange value, that is to say, according to what it will bring on the market. Not all wealth is actually offered for sale; therefore we can only approximate its actual value. The ability to perform valuable services, moreover, whether this ability be mere physical strength or the special skill of the surgeon or the trained knowledge of the lawyer, is quite as important a source of income as corporeal wealth; in an inventory of the nation's valuable possessions all the personal services that it has at its disposal should be counted. But it is impossible to compute the various personal services that form part of the

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mathematical calculations. If Pareto's results were expressed in the form of a pyramid, its sides would be concave, and it would terminate in a sharp, tapering point. Concerning the actual present distribution of wealth and incomes, see Section VI of the preceding chapter.

[1] Then why, it may be asked, do we always hear complaints of *overproduction?* The answer is simple. Overproduction in any branch of industry does not necessarily imply that more has been produced than is needed, but more than can be purchased by those who buy the products of this branch of industry. A proof of this consists in the fact that by lowering prices the surplus of goods can always be disposed of. Low prices may, to be sure, ruin the producers, but that is not the question which concerns us here.

social wealth at any moment. Hence the common conception of social wealth is limited to the material possessions of the community.[1]

Bearing this limitation in mind, we may estimate the total wealth of the United States and ascertain what would be the result of an equal distribution of wealth in this country.

The census valuation of real and personal property in the United States (excluding Alaska) in 1890 gave a total of over $65,000,000,000, of which the most important items were as follows: $35,000,000,000 in real estate with improvements thereon; $2,700,000,000 in live stock on farms, farm implements, and machinery; $1,300,000,000 in mines and quarries, including product on hand; $1,100,000,000 in gold and silver coin and bullion; $3,000,000,000 in machinery of mills, and product on hand (raw and manufactured); $9,700,000,000 in railroads and equipment, including street railroads; $700,000,000 in telegraphs, telephones, shipping, and canals.[2]

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[1] Some economists have proposed to regard the productive population as part of a nation's wealth. If this be correct, every additional able-bodied immigrant increases our national wealth; his value may be "capitalized," on the basis of his annual earnings, at the current rate of interest. Dr. Engel, an eminent German statistician, estimates the value of an able-bodied immigrant to a new country at $1000.

[2] The figures for 1890 were the latest complete official figures obtainable. The census for 1900, however, throws some light upon the probable increase of the total national wealth since 1890, inasmuch as the valuation of certain kinds of property in 1899 is given by the census authorities. Thus farm land with the improvements thereon, including buildings, amounted in 1899 to $16,614,647,491; live stock on farms amounted to $3,075,477,703; farm implements and machinery were valued at $749,775,970; the value of farm products was $3,742,129,357; the capital of manufacturing establishments amounted to $9,831,486,500, as compared with $6,525,050,759 in 1890. It is probable that this increase of 44 per cent in the value of manufacturing establishments was the greatest increase for the decade.

Taking these figures into careful consideration, and after due reference to estimates made by several careful investigators, it is probable that the total wealth of the nation in 1900 was about $93,885,000,000 — an increase of about 40 per cent above the figures for 1890.

Gide estimates the wealth of France at about $40,000,000,000. Divide this amount by the population, 39,000,000, and the quotient is about $1025.

Dividing the total valuation by the population in 1890, we get a quotient of $1030 as the per capita wealth. Taking the average size of the family at that time as a basis, we find that each family would have $5073 as its share, if the wealth of the nation were equally divided; and of this amount $3086 would be in real estate and $86 in gold and silver.

The national income for 1890 has been carefully estimated[1] at $10,800,000,000, or about $431 for each person engaged in remunerative business, including men, women, and children. This would mean an average income of $769 per family.[2]

It may be maintained that this would be better than the present state of affairs for many of us.[3] Who would

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If all the wealth of France were divided equally, and each family is supposed to consist of four members, the property of each family would amount to $4100, of which about $1400 would be in land, $1000 in buildings, $1300 in securities and credit claims, $260 in furniture, clothing, and objects of consumption, and about $140 in money.

According to R. E. May ("Die Wirtschaft in Vergangenheit, Gegenwart und Zukunft," Berlin, 1901) the *per capita wealth* of the other principal countries in 1895 was as follows: —

United Kingdom, $1548; Germany, $799; Russia, $313; Austria, $533; Italy, $518; Spain, $692; Australia, $1312.

The same authority finds the *per capita income* in 1895 for these countries to be as follows: —

United Kingdom, $184; Germany, $126; Russia, $49; Austria, $85; Italy, $71; Spain, $79; Australia, $262.

[1] By Dr. C. B. Spahr, "The Present Distribution of Wealth in the United States" (1896).

[2] The total national income for 1900 was probably over $15,000,000,000.

[3] M. Vilfredo Pareto has carefully examined the income statistics of Prussia, which are probably more accurate than those of any other country. Supposing that all incomes now above $1200 per annum were reduced to that amount, and the surplus distributed equally among all the inhabitants of Prussia, the income of each would be increased by only $25.

This recalls the familiar anecdote concerning the Frankfort banker Rothschild, who was taken by surprise by a few rogues during the revolution of 1848. The rogues demanded that Rothschild share his wealth. The banker asked them how high they estimated his fortune and what was at that time the population of Prussia. Dividing his wealth by the total population, it was discovered that the share of each inhabitant would be about two dollars, deny it? But we must admit that in the event of such a change the economic position of each citizen would more closely approach poverty than opulence. Such a change as this, moreover, would involve a general expropriation and perhaps an appeal to violence, and would be much too dearly purchased. Could not this modest, rather commonplace ideal be attained by more peaceful methods?

II. Communism

Every unbiassed thinker will admit that under modern economic conditions equal division is absurd. But is it necessary to divide wealth at all? As every kind of division would simply give rise to new inequalities, why not regard all wealth as belonging to everybody, and consider the members of society as one would the members of the same family? As in the family, let every one consume *according to his wants.*

Such is the simplest and the oldest of all systems of socialism.[1] But this system had already begun to be somewhat

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whereupon Rothschild, to their stupefaction, paid each of them this sum as his share and dismissed them.

Socialists would probably object that under a new productive system the sum total of wealth would be increased. But this remains to be proved. There are, in fact, good reasons for believing that it would be diminished.

[1] The authors who have developed theories more or less communistic are very numerous, beginning with Plato's "Republic"; but the most recent and most celebrated are Gracchus Babeuf, Robert Owen, and Étienne Cabet.

Babeuf, who called himself Gracchus, because he regarded the Roman tribune of that name (who voted for the agrarian laws) as a socialist, was the leader of the conspiracy of the "Equals" under the French Directorate. He was sentenced to death in 1797, and executed. Babeuf prepared a scheme of social organization, the program of which began with the words, "Nature gave every man an equal right to the enjoyment of all things."

Owen was born in North Wales in 1771, and died in 1857. He was not a revolutionary or democratic communist, but what might be called a *paternalistic* communist. He expected social reform to come from the upper classes. A rich employer of labor, and the proprietor of a factory at New Lanark, he inaugurated many of the philanthropic features of modern indusout of date and even ridiculous, when, quite recently, the anarchists took up the theory and gave it a new lease of life.

It must not be imagined that anarchism is based principally on the theory of the community of goods. The essential purpose and aim of anarchism is the complete and unrestrained development of human individuality. But many anarchists regard *communism* as the sole means of attaining this purpose. They believe that private property, no matter how narrow a scope we may give it, always implies the existence of some limitation of personal rights and the establishment of an authority or power charged with the business of compelling the observance of this limitation. They hold that the private possession of anything whatsoever will always be an obstacle in the way of those that possess nothing, and will become a means of exploiting those that have no property. Hence the only method of distribution which receives their approval is that of "taking just what you want" from the common store.

trial life: reduced hours of labor, prohibition of child labor, coöperative societies among laborers, savings banks, and even non-sectarian schools. But he was not content with these improvements, and began to organize communistic societies, one of which was founded in the United States at New Harmony, Indiana (1826). This attempt failed completely. The coöperative movement, however, and the English factory laws owe much to Owen as their real founder.

Cabet, the author of a romance, written in imitation of Sir Thomas More's "Utopia," entitled "Icaria," founded a society of Icarians in the United States, in 1848. The history of this community, which was first situated in Texas, then at Nauvoo, Illinois, and subsequently in Iowa, has been largely one of intestine quarrels. It has recently been disbanded.

It is a mistake to classify *Fourier* among communists. In reality, Fourier was a communist only as regards the consumption and production of wealth, but not as regards its distribution. He considered life in common (in the "phalanstery") only as a means of organizing production and consumption on a more economic basis, but by no means as aiming at the establishment of equality among men. Fourier declares expressly that his system permits the continuation not only of the inequalities which result from labor and talent; but also of those which result from unequal contributions of *capital*. (See the "Selections from the Works of Fourier," by Charles Gide, translated by J. Franklin. London, 1901.)

It must be admitted that the rule, "To each according to his wants," would be the most agreeable one.[1] But wealth would necessarily have to exist in unlimited or at least superabundant quantities, if every one could take whatever he wanted in such amounts as pleased him — just as we now take the air or water that we want.

Unfortunately this is not the case. The amount of wealth is, and probably always will be, insufficient for the satisfaction of our wants or our desires, because our wants and desires increase in direct proportion to the facility with which we can satisfy them. Hence, "taking just what you want" is impossible, and some method for sharing must be devised.[2] In the family, distribution is done by the authority of the father or mother, who gives a certain share to each member. But what authority in society shall be intrusted with this difficult task? There can be *no* such authority, because the social plan of these communistic anarchists involves the suppression of all authority and all government. Their motto is, Neither God nor Master. All will be adjusted, they assert, by way of mutual concessions, the exercise of good-will and the feeling of fellowship. But it is obvious that there can be no justification for an assertion like this, — so contrary to all that we know of human nature.

It must be borne in mind that we do not say, as sometimes has been said erroneously, that a communistic organization of society is absolutely chimerical. Communism certainly did exist at the origin of a large number of human societies, although perhaps not at the origin of all. Nor do we hold that its realization on a small scale is now impossible; because, aside from religious communities, there are communistic societies in the United States[1] which have already been in existence nearly a hundred years, while new ones are being founded from year to year. Although they have accomplished nothing very remarkable, they have, nevertheless, proved by their existence that the community of goods is not absolutely incompatible with labor and production. But note what have been, and must be, the conditions of their relative success: —

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[1] We do not say that it would be the *most equitable* rule (as is sometimes said), because it is difficult to see in what manner great wants can be regarded as justifying great claims. Modest, temperate people would always lose by such a rule as this. Professor Gustav Schmoller has well said: "It is a gross error to make our wants a standard of distributive justice, for our wants necessarily have an egoistic character. Only labor, merit, and services can serve mankind, and consequently constitute a standard of distributive justice."

[2] Anarchists, to be sure, suppose that all sharing will be made unnecessary by the superabundance of wealth. (See especially the books of Kropotkin.)

(1) These communities must be *very small*, and not exceed a few hundred or a thousand members.[2]

This point is generally admitted by communists themselves. Fourier fixed the maximum number of persons in a phalanstery at 1500. Owen fixed the number between 500 and 2000. Anarchists would suppress the central government and the nation, and base their communistic society on the independent commune. The reason for this is quite obvious: with every increase in the number of associates the proportional interest of each member in the success of the enterprise decreases. When the number is very small each member may hope to profit to a perceptible degree by his own efforts; but in a communistic society which should include all Americans, the interest of each member would be only one eighty millionth part of the whole — a fraction scarcely large enough to stimulate any one's personal zeal.

It cannot be said that the political evolution of modern society appears to be tending toward the autonomy of local communities and the suppression of national, central governments. On the contrary, all seems to point to centralization, the extension of the scope of government, the triumph of the principle of nationality and of imperialism. Even if it were possible to substitute independent communes for the central government, there would still be rich communes and poor communes; the inequality of individuals would simply make way for the inequality of local groups.

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[1] Consult Nordhoff, "Communistic Societies," Richard T. Ely, "The Labor Movement in America," and Bulletin No. 35 of the U.S. Labor Department.

[2] All those which exist in the United States are small in numbers.

(2) These communities must be subjected to *very strict discipline.* It is easy to see *a priori* that the community of life, and equal treatment for all, must be incompatible with every encroachment by which one individual tries to consume more than his share, and with every emancipatory idea of trying to escape one's share of the burden. Experience shows that the tendency is for members to try to evade the rules and to shirk the burdens put upon them, for in all the establishments in which there is life in common — convents, military barracks, and schools — there is invariably a strict insistence upon obedience.[1] It should be noted in almost all cases that religious feeling carried almost to the point of fanaticism has alone been potent enough to secure that strict discipline which is necessary to the existence of these communities. All the communistic societies of the United States, except that of the Icarians (which disbanded in 1896), are of a religious nature; and the Jesuit republics in Paraguay — really the only examples which are large enough, and have lasted long enough, to justify speaking of them — constitute veritable theocracies.

The practice of the communistic régime, when combined with the anarchistic ideal involving the abolition of all discipline and all regulation, is entirely absurd, and at all events seems thoroughly incompatible with the tendencies of modern life.

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[1] The history of the republic of Icaria fully demonstrates this fact. New members constantly attempted to escape the rules which they found odious. Cabet himself tried vainly to obtain dictatorial power in the interest of the community. The Rules of the Icarian Colony (1856) give interesting proof: "Art. 4. Be prompted by your devotion to the community. . . . Art. 16. Bind yourself to perform the work assigned to you by the management. . . . Art. 26. Have no preferences or dislikes in the matter of food. . . . Art. 27. Bear with resignation the discomforts of life in common. . . . Art. 37 Bear whatever discipline is imposed."

III. Saint-Simonism and Inheritance

The school of Saint-Simon, to-day forgotten, exerted a remarkable influence upon an entire generation of French thinkers, and even upon those of other countries, in the early part of the nineteenth century.[1] Although this school now is interesting only from the historical point of view, we must, nevertheless, say a word about it because it proposed a very attractive rule of distribution. The school of Saint-Simon insisted strongly on the claims of merit. They advocated a social hierarchy in which each one should labor according to his capacity and be rewarded according to the services rendered.

This school accepted sincerely and literally the oft-expressed thought that every man, even the master of an industrial concern or the mere possessor of a fortune, performs a "social function." The Saint-Simonians attempted to carry out this principle in practice. All trades, professions, and other branches of human activity they would turn into *public offices*, in the strictest sense of the term; that is to say, people should be appointed to these positions, and remunerated, by the government.

Saint-Simonism, therefore, is a kind of socialism, with the peculiarity of being an *aristocratic* socialism. Far from forbidding the existence of factory owners, capitalists, or even bankers, this school confers upon them the right to govern society and to occupy a rank inferior only to that of scientists and priests. It is not opposed to social inequality, but proposes to replace the inequality due to wealth by that due to individual merit. This is the thought expressed by their celebrated formula, "To each according to his capacity, measuring capacity by works." The French Revolution, they declared, was a failure because, although it put an end to all the political, fiscal, and civil privileges due to the accident of birth, it paid no attention to one privilege, the greatest and most absurd of all, namely, that of wealth. Logically, the French Revolution should have abolished inheritance in all its forms, and especially in the most important social functions — those of the landed proprietor, the capitalist, and the employer.

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[1] Saint-Simon died in 1825, and left behind him a politico-religious system which is more or less incoherent, but nevertheless characterized by occasional flashes of genius. His followers constituted a large group of influential men who literally fascinated the most distinguished thinkers of that period. Two of his disciples, Bazard and Enfantin, added largely to his teaching and made it far more accurate, especially from the economic point of view.

Thus the abolition of inheritance is the keystone of the Saint-Simonian system. It is impossible for us here to discuss this system in detail, but there are some points which should be brought out with regard to it: —

(1) Admitting for a moment that we might succeed in abolishing the inheritance of wealth, inheritance would still exist with regard to many other advantages, such as health, talent, mental traits, social rank, and even the family name, which, in carrying on an enterprise or getting a wife, is worth a fortune. Surely, nature herself plainly seems to have established the principle of inheritance and heredity.

(2) It cannot be denied that by depriving men of the right to dispose of the results of their labor we should be attenuating one of the most powerful incentives to production. Goods, which we have no right to dispose of as we think best, and which we should be unable to give away or bequeath to whomsoever we please, would lose a large part of their utility. They would be less desired, and we should make less effort to produce or obtain them. And we must admit — in simple justice to the nobility of human nature — that there are many persons who work and save for others, not only for themselves. If you oblige them to think only of themselves, they will work less and spend more. What a vast amount of wealth would thus be transferred from productive uses to unproductive consumption! How many years would thus

be withdrawn from productive activity and spent in premature retreat from active life!

(3) If, finally, we admit, in agreement with the Saint-Simonians, that the possession of riches constitutes a social office, is it not logical to conclude that the person who exercises this function is better able than any one else (even the government) to designate a proper successor — just as the Roman emperors themselves designated the future Cæsar?[1]

If, in the Saint-Simonian system, the head of the family is not permitted to designate his heirs, who, then, is to be entrusted with the duty of designating the most capable and worthy successor? Shall the government appoint each individual to a particular occupation, precisely as to-day the state appoints its officials, giving them a rank and salary proportionate to their supposed merit and services? Such a government would have to be as infallible as the Pope — as infallible as "the Priest" was really assumed to be by Saint-Simon, — to justify the exercise of so great a power. Would it not generally be conceded that wealth is now distributed much less unjustly by the accident of birth than if it were distributed according to the favor and arbitrary will of some sort of a pontiff?

And even if, instead of the choice of the government, appointments took place by popular vote, we may be sure that the most capable would not secure the positions for which they are best adapted. Nor would anything be gained, finally, by adopting a system of competitive examinations covering all kinds of labor and all manner of functions from the lowest to the highest; for this would probably result in the worst kind of mandarinism. Therefore it seems foolish to regard the abolition of inheritance as the proper means of realizing the distributive formula of the Saint-Simonian school: To each according to his capacity, measuring capacities by services. It is, at all events, unwarranted to take it for granted that the proposed system would be an improvement on the present competitive system. We may properly ask, moreover, even from the standpoint of ideal justice, whether the Saint-Simonian principle possesses the ethical value ascribed to it. May one not reasonably hold that intellectual or physical superiority ought not to be a claim to greater wealth or greater remuneration than that received by those who are less gifted? Is not exceptional intelligence or physical superiority in itself a sufficient advantage, little requiring to be emphasized by the additional privilege of claiming a larger share of material wealth?

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[1] It should be noted that this argument can justify only inheritance by will; the first argument is rather a defence of intestate inheritance.

IV. Collectivism

Collectivism is a moderate form of communism. It involves the common ownership of only the *instruments of production*, — land and capital; products are still left under the régime of private property, although collectivists desire a more equitable distribution of them.[1]

Collectivism does not pretend to be a scheme of social organization founded on abstract principles of justice.

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[1] Collectivism is of quite recent date. The term seems to have been used first by a Belgian writer, Colins, (1850); but the collectivism of Colins was largely agrarian. The distinction between instruments of production and objects of consumption, — which lies at the basis of the collectivist theory, — was made by Pecqueur in 1838, and Vidal in 1846. The first systematic, aggressive statement of the doctrine, however, was made by Marx and Engels in their famous "Communistic Manifesto," issued in 1847.

Ferdinand Lassalle and especially Karl Marx (the first volume of whose celebrated book on "Capital" appeared in 1867, and two more since his death) developed an elaborate economic doctrine of collectivism which constitutes the arsenal from which collectivists for more than thirty years have drawn their most effective weapons for attacking the present social system.

César de Paepe, a Belgian (who died in 1891) was the first to sketch a complete scheme of collectivist organization.

Although collectivism is often designated as "Marxism," in honor of its most illustrious theorist, not all collectivists are disciples of Karl Marx. The "Fabian Society" in England, and the so-called "independent" collectivists in France, do not, strictly speaking, belong to the school of Marx.

Unlike so-called utopian socialism or idealistic socialism, it purports simply to investigate the forces which are at work in social evolution, and to discover as the result of this investigation that modern society is inevitably tending toward a new order of things. Unchangeable laws of social progress have brought about the development of large-scale production, large-scale trade, and the concentration of property in the hands of fewer and fewer persons. All these changes are gradually doing away with small-scale individualistic methods of production and substituting collective production in their stead. Property must be individualistic when production is individualistic. The system of production and that of distribution have hitherto been in perfect harmony with each other; the small mediæval workshop was an example of this. But industry, trade, and property, have now entered upon a new period, characterized by large-scale methods. The scope of individual production is steadily being narrowed, while that of large-scale collective enterprise is constantly widening. Examples of this are numerous enough to challenge the attention of the most casual observer: large factories, great mining and manufacturing enterprises, railroad companies, department stores, trusts and industrial combinations of all kinds. Distribution, however, continues to be founded on private, individualistic property; that is to say, on a legal system which is no longer adapted to the actual economic organization of society. There is consequently at the basis of modern society a growing incompatibility, an antagonism, between its legal and its economic structure, which will ultimately result in the collapse of the present capitalistic régime and the abolition of private property in the instruments of collective production. The invincible logic of evolution teaches that *collective methods of production require a collective system of ownership.*'

As we have said, collectivism differs from communism in that the latter seeks to establish the common ownership of *all* goods without exception, whereas the former advocates common ownership only in the instruments of production, consumers' goods remaining subject to private ownership. To be more accurate, we should add that collectivism at present does not even advocate the common ownership of all the instruments of production, but only of those that are exploited collectively, *i.e.* by means of the employment of wage-workers. Thus the land cultivated by its owner, the boat which belongs to the fisherman, the mechanic's own workshop, — although these are all instruments of production, — as long as they are really under the control of the individual and are really the means of individual production, will not be transferred to social ownership.[1]

Collectivists assert,[2] however, that in the due course of economic evolution all the present forms of individualistic production are bound to disappear: they will either be eliminated by the increasing pressure of competition, which small concerns cannot withstand, or by voluntary transformation into collective enterprises. And as the evolution of property is necessarily parallel to that of production, the time must come when all the instruments of production will be transferred to collective ownership.

It must be admitted that expropriation[3] is practically the only means of accomplishing this transfer of private property to collective ownership. This will be the last step in that *class conflict*, begun many centuries ago, which Karl Marx regards as the most fundamental fact of history and as the key to all historical events.

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[1] As long as the instruments of production are still in the hands of the laborer, collectivists do not regard them as capital, in the sense in which they employ that term. (See page 118.) They are, therefore, logical in their programme.

[2] It would be better to say that collectivists *formerly* made this assertion, for now they appear to prefer leaving this point in obscurity. The collectivist party in its political programmes sometimes designates itself as the true and only defender of small land-holdings, of the small workshop, and of the small storekeeper. In Germany the socialist party is divided on this point; the opportunists follow the same plan as in France and endeavor not to antagonize the small landowner, whereas the faithful disciples of Marx declare, — and rightly declare, — that this is contrary to the true principles of Marxism.

[3] With or without indemnification? Moderate collectivists favor indemnification, provided the propertied classes are willing to submit with good grace to the process of "socialization." But if these classes offer resistance,

Collectivists declare that when expropriation has taken place, the instruments of production will be utilized by the nation or the commune, either directly or by means of trades unions or labor groups. The proceeds will be paid into the national treasury, which, after deducting the part necessary to meet the general expenses of society,[1] will give back the surplus to the laborers, who may then dispose of it exclusively and entirely as their own property.

But according to what formula would products be distributed among the producers? Although this is regarded as a question of secondary importance, collectivism also has its distinctive formula of distributive justice. Unlike the communistic formula, which gives to each according to his wants, collectivism proposes to reward each person *according to the effort he has made, measured by the number of*

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the collectivists favor expropriation pure and simple, and an appeal to force. Everybody knows that in reality the second alternative is the only possible one. In the first place, it would be impossible to find the sum of money necessary to indemnify the owners (about ninety billion dollars in the United States); and, in the second place, admitting even that the owners received some sort of indemnification, this indemnification (probably in the shape of coupons with which to purchase goods at the social stores) could not give rise to interest or revenue of any kind, and would doubtless be worth no more than mere assignats.

[1] These general expenses would be much greater than present taxes, because they would have to cover the cost of keeping all the children, old persons, and invalids, as well as the cost of insurance against risks of all kinds, and the cost of maintaining all productive establishments and equipment (since all these belong to society). Some provision would also have to be made for forming a reserve fund to maintain and increase the social capital.

It is true, on the other hand, that public expenses would be reduced by the interest on the public debt, which would no longer be paid, and, the collectivists believe, all expenditures for the army and navy, because there would be no more war.

hours he has worked.[1] Those who are unable to work receive a certain minimum allowance.

In the official statements of their views, collectivists maintain that this partial communism would suffice to remove the defects of the present social system.

First of all, they declare, it would result in the disappearance of extreme economic inequalities, for these inequalities have no other cause than the accumulation of capital and land in the hands of a few families. The accumulation of capital takes place with increasing rapidity, much as a snowball gathers volume and momentum as it rolls down a hillside. This rapid increase is due to inheritance, loan at interest, and the creation of incomes by the aid of hired labor. Capital permits its owners to *grow rich by the labor of others.* But as, under collectivism, no one would be able to profit except by his own labor, economic inequalities would be greatly reduced.[2]

It would, they hold, do away with the idle classes and social parasitism. When no one can become the exclusive owner of land or capital, it is obvious that there will be no room for persons who live on incomes due to invested capital or to the possession of real estate. When these sources of supply are cut off, such persons will be compelled to work.

It would eliminate excessive labor. In the first place, the proceeds of productive activity would be increased by that share which was previously appropriated by the idlers and the parasites; and, in the second place, as all useless and absurd branches of production would be abandoned, the labor required of each member of society would be greatly decreased. Four hours at the most, and perhaps three, would suffice to secure the same results as are now achieved; an English socialist has calculated that even one hour and twenty minutes per day would be enough!

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[1] "The quantity of labor is measured by its duration. . . . But the labor which constitutes the substance of values is equal, uniform human labor, the expenditure of the same intensity of labor-power." — KARL MARX.

[2] Collectivism, however, does not do away with inheritance, as is frequently supposed. If a man has accumulated anything and cares to transfer it to some one else, collectivists would not object; the beneficiary might live without working, — as long as the inheritance lasted.

This concession may appear surprising at first, unless we recall that collectivism excludes land and capital from the domain of private property, that is to say, practically the only kinds of wealth which are productive and lasting, and the only kinds which give rise to permanent inequalities. Hence inheritability is limited to objects of consumption, and has but little importance.

It is held, moreover, that collectivism would do away with pauperism. For if society as a whole became the owner of all the land and all the capital, society would find employment for all who were able to work; and for those who were unable to work, society would at least provide the means of existence.

Collectivists maintain, finally, that by recognizing property in the product of one's own labor and the right to dispose freely of one's possessions, individual liberty would be kept perfectly intact; and that this social system would obviate entirely the danger of communistic tyranny or the necessity of living in the uniform, disciplined manner of a communistic familistery.

In answer to those assertions of the collectivists, the following points may be raised: —

(1) The so-called law of social evolution upon which collectivism is founded, viz. the gradual transformation of individual, isolated production into collective production, is only a sweeping generalization; it does not cover all the facts of social evolution, and is contradicted by many of them. We have already pointed out (see pages 166 ff.) that in agricultural production there is, in spite of collectivist assertions to the contrary, no proof whatever of this tendency to large-scale production. On the contrary, the land is being divided into smaller sections, and the average size of the farm tends to decrease with the increased density of population and the progress of intensive methods of farming. Large-scale methods of agriculture, and the accu-

mutation of property in land, are altogether exceptional phenomena. Even in manufacturing, small concerns have not been driven out of existence by large enterprises, but have increased quite as rapidly as the latter.[1]

It is therefore highly probable that collectivists, tired of waiting patiently for the termination of a slow evolutionary process the ultimate result of which seems increasingly uncertain, will employ violence to accomplish their purpose. The change thus effected may, if the collectivists should obtain control of law-making, preserve all the forms and the appearance of perfect legality; the violence they employ may therefore be legal violence. But the change would be none the less revolutionary. An ideal, moreover, that can be realized only by an appeal to force must necessarily be odious.

(2) The right of private property, which collectivists assert they are simply narrowing somewhat by confining it to those products that are the result of one's own labor, would under collectivism be a mere illusion. For if the ownership of these products were recognized, and possessed all the attributes which constitute the right of property (especially the right to lend, to sell and to exploit as a source of income), it would again give rise to the inequality of wealth; it would, moreover, again create the classes of creditors and debtors, employers and employees, buyers and sellers, and thus rebuild the whole economic edifice which had been overthrown. Hence collectivists expressly stipulate that the so-called owner of "property" would in no case be permitted

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[1] The doctrine of the increasing concentration of property and production has already given rise to lively discussion among collectivists themselves. Bernstein, one of the keenest thinkers in the ranks of collectivists, in a book which created quite a turmoil ("Zur Geschichte und Theorie des Socialismus," Berlin, 1901), attacked this doctrine openly. He pointed out, for instance, that in England the number of families having incomes between $750 and $5000 has increased to more than three times what it was thirty years ago; the number of small workshops employing from one to ten laborers has almost doubled. Many new occupations, such as photography and the repairing of bicycles and automobiles, have sprung up and given rise to a great number of small shops.

to sell or lend his share of the productive proceeds, or to use it as a means of employing the labor of others.[1] He would be allowed only to consume it or keep it or give it away. He would be forbidden, in other words, to use it for any other than *unproductive purposes.* This state of affairs would not be very reassuring from the standpoint of productivity. It is, furthermore, extremely probable that the possessors of wealth would be unwilling to accept without a protest this narrow limitation of their rights as owners. They would persistently seek to make a more profitable and effective use of their "property"; and this would be likely to necessitate the enactment of drastic measures to prevent them from doing this, — measures singularly vexatious to those who cared anything for individual liberty. At all events, the right of property, thus emasculated and robbed of its most essential attributes, would become a mere shadow, and we should soon degenerate into a state of society scarcely distinguishable from communism.

Hence it is a vain boast for the collectivist to maintain that his system is a happy mean between communism and the individualistic régime. It appears, moreover, that collectivism must ultimately lead to the former of these social systems, unless, indeed, it deliberately reverts to the latter.

(3). The plan to substitute "directors" appointed by society or elected by the labor unions, for all the "captains of industry," employers, landowners, and capitalists, is well calculated to cause grave anxiety in the minds of those who have any knowledge of practical industrial conditions and of the meagre economic training of the laboring classes.

But the social class whose disappearance may well cause most anxiety is that of the capitalists who save. There are in this country millions of large and small capitalists,—especially the latter,—who together save many millions of dollars each year, who perform the exceedingly important economic function of maintaining and increasing the riches and prosperity of the nation, and augmenting its supply of productive capital. They do this, to be sure, in their own interest, not because the economic progress of society demands it; but the outcome is of no less vital concern for the entire nation.

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[1] Will he be permitted to use it as a means of producing in conjunction with *his own* labor, independently of others? Collectivists would doubtless allow this provisionally, that is to say, as long as there are any autonomous producers. But logically this would not be compatible with collectivism, inasmuch as the aim of the collectivist system is to do away with individual, isolated production, and make all production social and collective.

Under a collectivist régime, the great motive, the mainspring, of individual saving would be destroyed. Why? Because it is very unlikely that persons who are sure to receive at least an amount of wealth sufficient to provide the necessities of life will seek, in the interest of society as a whole, to consume less or to cut down that part of the social proceeds which constitutes their share. Let us even admit that some persons would continue to put aside a part of their income, in the form of labor coupons or certificates or whatever medium of exchange is employed. In this event they would keep this part of their share simply for the satisfaction of future wants, and would never think of investing it; in fact, they could not do so even if they desired, because this is strictly forbidden. All they could do with their savings would be to hoard them unproductively, and in a manner which furnished no advantage or utility whatsoever to society as a whole.

But how, we must therefore inquire, will the maintenance and accretion of the nation's supply of capital be provided for, when the formation of capital by private saving will have been done away with? Public saving is suggested as a substitute. Society as a whole, we are told by the collectivists, would do precisely as financial organizations are now in the habit of doing: it would put aside 10 or 20 per cent of its proceeds as a reserve fund. But we must raise the objection that a government which knows how to save, which is willing to save, and which is able to save, has never yet been known to exist; we are therefore asked to take it for granted that a collectivist government will in this respect be entirely unlike all kinds of government that have preceded it; that it would be economical and provident; that it would, in brief, possess all those sterling, conservative qualities that to-day characterize the despised small capitalist and the successful business man.

(4) The proposed distributive formula immediately gives rise to an exceedingly important ethical problem,[1] viz. whether each member of society would be rewarded according to the labor performed, that is to say (as the system of Marx implies), according to the productive effort made; or, whether it would not be better to reward each person according to the ultimate outcome of his productive activity, measured by the product itself. In other words: Shall labor itself, or the product of labor, be the ultimate standard of distributive justice?

Nor is this all. Even admitting the ethical superiority of the rule that measures the recompense by the trouble of production, there remains the question whether this rule could be applied practically. It would manifestly be impossible to carry out such a rule as this if, as we have attempted to prove (pages 52 ff.), and as the majority of modern economists contend, the value of all things is determined at least in part by desire or utility, and does not necessarily have any direct connection with the labor involved in their production. If our theory be true, value cannot possibly be determined by any such rigid rule as that proposed by Marxism. We may, to be sure, give to each member of society, in exchange for his labor, a number of "certificates" or "tickets" equal to his hours of labor. But it would be impossible to guarantee that in exchange for these certificates he will be able at any time to obtain goods representing an equal period of equal labor; for no conceivable power can prevent a rare commodity from being worth more than one which is abundant, although both may cost the same number of hours of labor.

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[1] The school of Marx refuses to discuss this ethical problem and expressly eliminates all moral considerations from its argument. But the ethical problem nevertheless exists and demands solution.

Suppose, furthermore, that this formula were adopted as the law of distribution. Is there not reason to fear that its practical application would have unfortunate effects on the productivity of society, and that it would put a premium on laziness? For experience shows that the man who devotes most time to a given task is generally not the good, but the poor workman.

Marx answers this objection by declaring that he does not propose to count the time spent by a particular workman on a particular product, but to find out how many hours are usually necessary under given social conditions to produce the commodity in question. Value is measured, says Marx, by "socially necessary hours of labor," that is to say, "by the period of labor required to produce any exchange value under present normal social conditions of production, and with the average degree of dexterity and intensity of labor." This period is calculated on the basis of statistical data. Given, for example, the number of bushels of wheat produced annually in the United States; given the number of laborers engaged in its production; and given the number of hours these laborers worked; it will not be difficult, says the Marxist, to determine how many hours and minutes of labor are on the average necessary to produce a bushel of wheat.[1]

[1] The economists who explain value by the subjective theory of final or marginal utility have no difficulty whatever in demolishing Marx's theory of value, inasmuch as they deny absolutely the possibility of discovering any *objective* standard or common measure of value. The theory offered by Marx is in fact (as we have already hinted on page 59, note 1) a development of the classical labor theory of value. It is therefore interesting to note what an eminent economist of the modern classical school has to say with regard to Marx's theory:—

"The hours of labor suggested by Marx as a common measure of value," says Professor Paul Leroy-Beaulieu, "and applied to all kinds of labor, is simply an ideal entity which corresponds to nothing real or tangible. Marx's idea that labor is the measure of value because it is the cause of value is en-

We object that this calculation is not an easy matter. But let us suppose that it is. Under the proposed system no one would have any interest in producing more than the average amount of wheat. The ideal of justice, moreover, which this formula seemed to approach, on closer examination is grossly violated. When we speak of the effort or trouble or *labor* of production, and of the motives and intentions that prompt the worker, we should consider *individual labor*, not social labor. Justice demands the adaptation of recompense to the deserts of each separate person; it has nothing to do with social *averages*.[1]

V. Coöperation

In its etymological sense the word *coöperation* simply means "working together"; but it is now employed in a more definite, specific sense by those who regard it not merely as a means of attaining certain aims or of accomplishing certain social improvements, but as a complete scheme of social reconstruction. This scheme is not exactly socialistic, because it would retain private property, together with its principal attributes.[2] Yet it is socialistic in the

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tirely incorrect. Value has no other cause than the intensity of the desire for an object and the difficulty of its acquisition; this is in turn usually regulated, in the case of a very large number of objects, by the cost of production. But the cost of production does not consist simply of the 'time of labor' (to employ Marx's expression); it includes very diverse elements, many of which cannot be reduced to quantitative expressions of labor. The intellectual and material labors of man are so varied, moreover, are of such diverse importance both from the point of view of their actual result in the shape of concrete products and of their proper remuneration, that it is impossible to reduce them to a single common basis."

[1] Many efforts have been made (by William Thompson, Owen, Rodbertus, and especially by George Renard in his book on "Le Régime Socialiste") to discover some simple, easy plan for distributing wealth proportionately to labor. But there is no simple, self-operating device conceivable other than the law of supply and demand.

[2] In recent years, however, a certain number of collectivists, and even some anarchists, have advocated coöperation, without abandoning their plan to socialize property. They regard coöperation as a preparatory stage,

sense that it proposes a social ideal entirely different from that of the individualistic and capitalistic system, and seeks to realize several of the most important desiderata of socialism. It does not, however, postpone social betterment until society has been revolutionized, but, meanwhile, secures a real and immediate improvement in the conditions of human existence.

In the beginning of the nineteenth century, Robert Owen (in England) and Fourier (in France) considered that man and the world might be completely transformed by means of voluntary association or coöperation. To accomplish this, they invented more or less ingenious schemes which proved unsuccessful. But the necessities of hard, practical life, more potent than theories of reform, have given rise simultaneously in several countries to widely different varieties of association. In England there are consumers' coöperative societies;[1] in France, coöperative societies for production; in Germany, credit associations; in Denmark, rural coöperative societies; in the United States, building associations, mutual benefit societies, etc. These associations have, to an extent that is still quite limited, already begun to make important changes in prevailing economic conditions, and to open the way for the realization of great hopes.

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simply as a step toward their ultimate goal. For coöperators generally, the coöperative commonwealth is an end and aim in itself; they are not blind to the deficiencies of coöperation, but they believe that it is the basic, essential principle of the coming society.

[1] We have throughout this book used the term "consumers' coöperative societies" when speaking of such coöperative institutions as those which prevail in England. These are not examples of coöperative *consumption*, but of coöperative *distribution*, in the customary sense of the term. The members do not consume goods together, but together engage in their sale, *i.e.* their distribution.

The term "consumers' association" must not, moreover, be confounded with "consumers' leagues," such as have been founded throughout the United States, especially in cities. These leagues consist of large numbers of consumers who discourage the purchase of any article made in unsanitary buildings or the makers and sellers of which are inadequately paid.

We cannot here investigate each kind of coöperative association in detail, and must refer the reader to those sections of the book under which the different varieties of coöperation are discussed.[1] We shall, however, point out some of the features which characterize all kinds of coöperation, — features which really constitute a programme of social reform: —

(1) All coöperative organizations aim at the *economic emancipation* of certain classes of society in order that they may do away with unnecessary intermediaries or middlemen and learn to suffice unto themselves. Consumers' societies help consumers to get along without butchers, bakers, and other retail shopkeepers, by enabling them to purchase goods directly from the producers, or, better still, by themselves producing whatever they need. Credit associations enable borrowers to escape the clutches of usurious money-lenders, by obtaining for them directly the capital which they need, or even by helping them to create this capital for themselves by means of ingenious schemes for collective saving and mutual assistance. Productive associations enable workers to dispense with employers, by making commodities under their own guidance and selling them directly to the public.

(2) They all aim at the substitution of *solidarity* for competition, and of the coöperative motto, "Each for All," for the individualistic device, "Everybody for Himself." Instead of competing with each other, men form associations to provide for the satisfaction of their wants; and those associations make it a rule not to compete with each other; but, on the contrary, to unite in the formation of great coöperative federations.

(3) They all aim not to abolish private property, but to make it *more general* by facilitating the acquisition of pri-

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[1] For coöperative consumers' societies, see the sections on Consumption; for building associations, see the section on Some Special Forms of Credit; for productive coöperation, see the chapter on Profit; for coöperative credit associations, see the chapter on Credit.

vate capital either by saving or borrowing, and to create corporative property or *collective ownership* of stores, banks, workshops, factories, and houses.[1]

(4) They all aim, not to suppress capital, but to *deprive it of its controlling influence in production*, and to withhold that part of the product which capital appropriates in the form of profits and dividends. The abolition of profit in all its forms was the essential feature of Owen's reform scheme. Many coöperative associations are expressly forbidden by their constitutions to make any profits, or are obliged to pay them into a reserve fund. Other associations distribute profits among their members in proportion to their purchases (when the members are "purchasing" members), or in proportion to their labor (when they are employees), but never in proportion to their shares, *i.e.* to the capital they furnish. Those who contribute shares of capital and those who make loans of capital always do so simply for a moderate interest, never in consideration of dividends. Some societies pay no interest at all on their capital. When we note that in joint stock companies and corporations, which are

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[1] The number of coöperative societies in England (1901) is 1648. The statistics for 1604 of these societies showed a total membership of 1,919,555 persons; shares amounting to £24,595,706; annual sales amounting to £81,-782,940; annual profits, £9,099,412; investments, £15,577,803.

German coöperative credit associations, according to the latest report published (for 1901) had funds amounting to about $330,000,000, *i.e.* $55,000,000 in shares or reserves, and $275,000,000 in outstanding loans.

On July 1, 1902, there were 1641 consumers' coöperative societies in France. Six hundred and sixty-three of these societies reported a total membership of 160,438. There were also 323 productive coöperative societies in France, principally in the building trades.

The Danish Farmers' Coöperative Association includes 1056 coöperative dairies, which in 1901 produced butter to the value of $37,500,000, and exported 7,350,000 eggs.

Even Japan has 486 coöperative associations.

It is practically impossible to get any reliable figures with regard to the present status of coöperation in the United States. The student would do well to consult the coöperative newspapers with regard to the movement in this country, — especially the *American Coöperator*, published at Lewiston, Maine.

now increasing so rapidly in wealth and numbers, capital appropriates the proceeds of the enterprise, conducts production, and reduces all the workers to the rank of hired employees, we are better able to understand that the system of coöperation really means nothing less than a social revolution, inasmuch as it reverses the present situation, and places capital under the command and control of labor.

(5) Lastly, all coöperative associations possess great *educational* value because they teach their members to sacrifice no part of their individuality or their spirit of enterprise, but, on the contrary, to develop their energy and ability to the utmost degree, to help others by helping themselves, to regard the satisfaction of legitimate wants (not the pursuit of profits) as the purpose of economic activity, to raise the moral level of economic relations by suppressing advertisements, trickery, food adulteration, the sweating system, etc., and to abolish all the methods by which men exploit each other, as well as all the causes of social conflict. Indeed, it may be said that each important variety of coöperative association is characterized by the abolition of some social conflict, of some clash of economic interests: the consumers' association suppresses the conflict between seller and buyer; the credit association suppresses the conflict between creditor and debtor; the productive association suppresses the conflict between employer and employee.[1]

Can these associations carry out so ambitious a programme as this? As the oldest of them has been in existence less than sixty years, it would be difficult to give an unqualified answer. M. Claudio Jannet, however, who was certainly not a coöperator, felt justified in declaring that coöperation is "the only social experiment of the nineteenth century that has been successful." Coöperative societies of production, on which early French socialism founded such great hopes of social regeneration, have, in some instances, achieved glorious success, but these instances have thus far been few in number. But coöperative credit associations, and especially consumers' associations, have developed most remarkably, and are still growing with a rapidity that amazes their adversaries and even their advocates. Consumers' associations now aim at the absorption of all other forms of coöperative organization, and thus to establish, as it were, a coöperative commonwealth in which the complete control of production shall be placed in the hands of the consumers themselves. Certainly the accomplishment of this object would be an economic transformation of no mean significance.[1]

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[1] There are other forms of association which also aim at the suppression of economic antagonisms. Trades unions, for example, and combinations of employers, endeavor to suppress competition among workers in the same trade or employers in the same business. But in these cases the conflict is due to a rivalry of *similar* interests, while coöperative associations attenuate the conflicts due to divergent, *opposite* interests.

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[1] Professor Paul Leroy-Beaulieu, in his large "Économie Politique," gives the objections that are raised against coöperation as a principle of social regeneration. Consult also Gide's volume on "La Coöperation."

PART II. THE VARIOUS KINDS OF INCOME

We have considered the general principles of the distribution of wealth. We must still make a more detailed examination of the share which each of us receives as *income*, and discover the origin and causes of each kind of income.

If we were living under a system of isolated production, each person producing upon his own land and with the aid of his own implements, such a study as we are about to make would be unnecessary. Each of these autonomous producers would keep for himself the entire product of his labor; no one could rightfully dispute his claim to it, and there would be absolutely no need for discussion.

But we know that this supposition is far from true, unless it be in very small industries. To-day, the principal agent of production, called the *entrepreneur*,[1] or projector, usually furnishes only a small share of the elements indispensable to production; he is obliged to borrow from others part or all of these elements: labor, land, and capital. Therefore he cannot retain all the product for himself, but must first pay his collaborators for their assistance, and the share which each of them receives constitutes his income. To the laborer he will give *wages*, to the capitalist *interest*, and to the landowner *rent;* and the remainder the *entrepreneur* will keep for himself, provided there is anything left. This remainder constitutes his own income, and is a distinct variety of income called *profits.*[2]

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[1] The French term *entrepreneur*, literally meaning undertaker (the person at the head of any undertaking), has now acquired current usage in English.

Adam Smith and the old English economists did not distinguish the *entrepreneur* from the capitalist. J. B. Say first pointed out the distinction, although the word was used by Quesnay.

[2] Instead of giving his co-partners their share *after* the value of the prod-

For this reason logic would seem to require that we begin this review of the various categories of income by taking up profits, since the *entrepreneur* has charge of distribution, and all the other kinds of income must pass, so to speak, through his hands. This, however, is by no means the case. As we have just said, profit is that part of the value of the product which is left after the shares of the other participants have been withdrawn. Hence it is most convenient to begin with the study of the three other kinds of income.

The threefold division of distribution possesses the advantage of corresponding very closely to the three branches of production. Each of the three factors which unite in the work of production has its distinct share in the product. This seems so perfectly natural that the classical economists paid no attention whatever to the justification of these various kinds of income. Their existence and the necessity for them seemed perfectly self-evident.

The economic mechanism which we have described, however, in which the *entrepreneur* plays a very important part, possesses an artificial or at least accidental character; it is simply one phase of economic evolution. If we recall the limitations pointed out in connection with the threefold division of production (see page 69); if we remember, moreover, that labor, or rather man, is the true agent of production, and land and capital only instruments in his control, the

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uct has been realized, the *entrepreneur* may do this *in advance*. This is precisely the custom with regard to wages and rent; but it makes no difference in the nature of distribution.

It is, moreover, possible and even customary for the *entrepreneur* to provide some of the productive elements. He may furnish all or part of the capital. Generally he provides a certain amount of labor. But this matters little from the theoretical point of view, for in this event the *entrepreneur* simply combines other functions with those that naturally devolve upon him, and the total income which he receives will consist of several theoretically distinct elements. Even though he provided all the necessary elements for production, and produced goods independently of the help of others, his income may theoretically be divided into the four component parts here pointed out.

serene confidence of classical economists in the reasonableness and justice of this symmetrical division is somewhat shaken, and it would appear both natural and just that the laborer should receive the entire product. Land and capital being both inert *things*, they cannot pretend to claim for themselves any share in the product. It would seem that to speak of their rights or their claims, and to regard them as sharers in the proceeds of productive activity, must be purely metaphorical. Only *persons* can have rights or claims. It is of course understood that land itself or capital itself makes no claim to a share, but the landowners and capitalists who represent them. But is it not, at the very least, necessary for these persons to state why, and by virtue of what right, they are authorized to speak in the name of the land or of capital?

CHAPTER I — WAGES

I. Definition of Wages

WAGES, as generally defined by economists, mean the income received by a person in exchange for his labor.

If we adhere to this definition, wages must be regarded as the natural income *par excellence*, — as the income that has always existed and always will exist. We cannot conceive a social state in which a man could live otherwise than by exchanging his labor, or the products of his labor, or his services, for a certain amount of wealth. The classical economists have consequently declared that all men live by labor; or, as Mirabeau put it, "all men are wage-workers, except thieves and beggars." The classical economists regard even landowners and persons living on independent incomes as belonging to the category of workers.

But in our opinion this definition is not correct; it is probably inspired by a perhaps unconscious desire to regard wages as the most natural and perfect kind of remuneration, and to accept the wage system as a permanent and necessary institution.

Now it should be the province of science to discriminate, and to distinguish the various kinds of "labor" and the incomes arising therefrom, rather than to confound them. The word "wages," in the language of economics as well as in that of everyday speech, should be applied not to every kind of remuneration for labor, but only to the remuneration for a particular kind of labor; that is, for labor performed under certain clearly defined conditions. It should, in a word, be defined as the price of labor hired and employed by an *entrepreneur*.[1]

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[1] Indeed, in everyday speech, wages means the pay of the laborer, that is to say, of the man who works for an employer. The other kinds of remu-

We have repeatedly had occasion to note that the employment of laborers by the *entrepreneur* constitutes the striking feature of modern economic organization. It is, in fact, inseparable from the present economic organization of society. The wage system and the industrial leadership of the *entrepreneur* or employer are, so to speak, two aspects of the same social institution. Labor now being a commodity that is offered for sale on the market may be called *merchandise*. The worker is the seller; the *entrepreneur* is the purchaser; and the price is called *wages*.

It is therefore obvious that the payment of wages is a method of remuneration of comparatively recent development in the economic history of mankind, — a method which has been made general by the capitalistic constitution of present society and the use of labor hired by employers. It is not impossible, moreover, that the wage system may disappear with the disappearance of the present economic system. This will be made plainer in the next section.

II. History of the Wage System

At all times, even under the slave system of antiquity, there were poor freemen who hired their labor to the rich members of the community in exchange for money or for goods; these men may perhaps be regarded as wage-workers. But this kind of labor was entirely exceptional. There could be little use for men of this class in that long period of economic evolution to which we have given the name of "family economy" (page 132), — the period in which the labor of

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neration for labor have different names. The income of professional men consists of *fees*, *retainers*, *honoraries*, etc. That of officials is called their *salary*. Although these persons live also by their personal labor, they do not sell their labor to an employer or *entrepreneur*, but to their patients, clients, etc., or to a political community. The economic laws which determine the remuneration received by these persons are entirely different from those which regulate the wages of employees. We cannot, however, enter into the problem of the determination of all these incomes, but must confine ourselves to the most important of all, *i.e.* wages.

slaves or serfs was sufficient to produce all that was needed by the household. These free laborers were more like modern independent workers "in business for themselves," *i.e.* autonomous producers living by their trade. They were occasionally hired to help out in cases where the slaves or permanent servants were not sufficient.[1]

Nor could there be a large class of genuine wage-workers under the second economic system discussed above (page 138), —that of guild industry. The "journeymen" were doubtless paid by the master of the shop, but their relation to him was not that of wage-worker to employer. The journeyman and the master were bound together not only by social fellowship and close association, but by reciprocal legal duties. Journeymen could not be discharged at the pleasure of the master, nor could they, of their own choice, cease working for the master. Their wages and their labor were regulated by the statutes of the guild. All of them, moreover, hoped some day to become masters themselves, and for most of them this hope was ultimately fulfilled.

In brief, under this system the workers and the masters did not constitute two opposing social classes, but simply constituted two successive stages in a man's industrial career.

But toward the end of the Middle Ages the small town markets about which the guilds had grouped ceased to be the centre of economic life. The great states of Europe began to assume definite shape and to constitute economic organisms. New roads and routes were opened and gave rise to national and even international markets. The mediæval masters were unable to produce on a sufficiently large scale for these enlarged markets. Their place was gradually taken by capitalists and wealthy merchants who subsequently became industrial leaders. Thus the modern "employer" of labor was evolved at the same time that the "journeymen" found it impossible to become "masters." Gradually a body of men came into existence who were unable to look forward as a matter of course to a time when they should themselves be master-craftsmen. They began to form a distinct working-class in a more modern sense of the term. Shut out from the guilds of the masters, they formed guilds of their own, consisting exclusively of journeymen. These were really the first trades unions. From that time onward, capitalists and laborers are separated, and the history of labor ceases to be the history of capital.[1]

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[1] Sometimes a master would lend his slaves to other persons for a fixed price, which might perhaps be called wages; but this payment was entirely different from wages as they exist to-day, because the *master* received it, and not the slaves themselves.

Still another step was required for the evolution of a class of wage-workers such as exists to-day. It was necessary to suppress all the rules and regulations which caused the economic inferiority of the guild system, and which were a hindrance as well as a protection to the workman. It was necessary to remove the restrictions which had previously hedged about the manual laborer on all sides, and by virtue of the right of private property and free contract to allow the laborer to do with his labor what he pleased. It was at this time that manufactures were created or fostered by the government, entirely outside the scope of guild influence; they employed considerable numbers of these free laborers, and were enabled to apply an elaborate division of labor and large-scale methods of production. Ultimately, most European governments did away altogether with guild regulations and decreed the entire liberty of labor to engage in any occupation at any time or any place, under conditions agreed upon by employer and employee according to free contract.

This last step made the workers free: free to sell their labor at a price determined in the open market by the law of demand and supply; free to refuse employment or to stop work when it pleased them to do so. And of course the employer was also free, under the same conditions, to pay them the minimum price for which labor could be obtained; free to hire men, women, or children, and to discharge them at his pleasure. The contract of hire was made as free as a contract of sale, — much more simple, in fact, inasmuch as the law made no provisions concerning it, — and human labor became a commodity the value of which is fixed by the same laws as govern the value of any other merchandise. All this accomplished, the modern wage system was the result.

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[1] Consult: Ashley, "An Introduction to English Economic History and Theory"; Seebohm, "The English Village Community"; Cunningham and McArthur, "Outlines of English Industrial History"; Gomme, "The Village Community"; Cheyney, "Industrial and Social History of England"; Gross, "The Gild Merchant."

No one, not even a socialist, would think of denying that this economic régime has given a remarkable impetus to production, or that it accounts largely for the present industrial status of civilized nations. Nor would, on the other hand, any fair-minded person deny that industrial liberty was at first much more profitable to the employers than to the employees. The latter were isolated, unorganized, the victims of laws which forbade them to unite and which therefore placed them under conditions most unfavorable to the sale of the only commodity they possessed; this commodity, — their labor, — they were obliged to sell for a mere pittance. It is generally recognized, moreover, that from the end of the eighteenth to the middle of the nineteenth century the condition of hired laborers (especially in Europe) was very unfortunate, and that the wage system was even less advantageous to them than preceding industrial systems.

But during the past thirty years many improvements have been effected in the condition of employed labor, for these reasons: —

(1) Because employees have learned to unite and form organizations for the better defence of their interests; and because the prohibitive laws which placed obstacles in the way of exercising the perfectly legitimate right to organize have been abolished.

(2) Because in many countries so-called "labor laws" or "factory laws," which we shall summarize later, have been passed in the interest of the working classes to provide humane safeguards such as existed under the guild system, but which were subsequently done away with. These laws regulate the hours of work; insure laborers against accident, sickness, old age, etc.; and secure hygienic conditions of employment. Although they have not attempted to fix the rate of wages, they have usually established certain rules with regard to the method of payment and the discharge of employees.

III. The Laws of Wages

Laws of wages should formulate the general principles which determine the rate of payment for hired labor and should indicate the causes of its rise or fall. The problem of wages is one of the greatest in political economy, and has given rise to a multitude of celebrated theories. Before taking up this problem, however, two distinctions require to be drawn very clearly, viz. that between *real* and *nominal wages*, and that between the *real* and *nominal cost of labor*.

We often speak of wages as the "laborer's share of the product." This, however, is not entirely accurate. The wages of the weaver, for instance, do not consist of a certain number of yards of the cloth which he has helped to weave. The wages of labor, at least in modern civilized societies, are almost always paid in money; and in many countries the law prescribes that wages must be so paid.[1] They represent a certain share of the *value* of the product. But as the contract of hire is made before work is undertaken, wages are agreed on before the product is sold. The employer, moreover, is obliged by law to pay the stipulated wages, whether the product prove salable or unsalable, of little or of great value. Wages, therefore, are advanced by capitalists in anticipation of a future return.

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[1] Payment in commodities — supplied usually by stores kept by the employers — is called the *truck system*. This system was at one time quite prevalent in England and in this country, where workers were obliged to take out a certain part of their wages in purchases at the stores. It has often been made a device for robbing the laborers.

If the laborer received his remuneration in cloth or in whatever other commodity he had produced, he would have to sell it in order to buy food and fuel and to pay the rent of his house. This, to say the least, would be a difficult matter; the worker prefers to have money, because of its advantages under the present system of division of labor and exchange. The payment of money for labor, however, must not blind us to the fact that what the laborer really works for is not money, but bread, clothes, fuel, and all the other things he wants. These are his real wages; provided he gets more of them, it does not matter whether he gets more or less money. If food or clothing or fuel or rent become dearer, the wages of every workman are really lessened. On the other hand, everything which makes goods cheaper increases the real wages of the workman, because he can get more goods in exchange for the same money wages.

We may therefore, with Francis Walker, define *real wages* as "the remuneration of the laborer reckoned in the necessaries, comforts, and luxuries of life." Walker points out that wages may apparently be the same, and yet differ widely by reason of the following circumstances: —

(*a*) Variations in the purchasing power of money.

(*b*) The form of payment, as when the board of the laborer, the rent of a cottage, the privilege of grazing a cow, allowances of certain quantities of food, drink, or fuel, the right to take flour at miller's prices, one or more of these, are added to the money wages of the laborer.

(*c*) The greater opportunities in some avocations than in others for extra earnings by the laborer himself or by the members of his family.

(*d*) The greater regularity of employment in some avocations than others.

(*e*) The longer duration of the capacity to labor in some avocations and some countries, than in others.[1]

From the standpoint of the laborer, therefore, real wages, not *nominal* or *money wages*, are of most importance. This, however, is not the sole aspect of the wage problem. From the standpoint of the employer wages may be high, — not only nominally but really, — and yet labor may be cheap. When we speak of cheap labor, we refer usually to labor that is poorly paid. But this is not strictly correct. "The cost of labor is high or low, according as the employer gets an ample or a scanty return for the wages he pays the laborer, whether these be low or high." If a bootmaker receives $2 a day and makes $7 worth of boots, his labor costs less than that of the bootmaker who is paid only $1 a day and makes only $3 worth of boots.[2]

Differences in the productivity of laborers in the same trade and locality are often so great that wages are not paid according to the time of work, but according to the quantity of work that is done. Such remuneration is called *piece wages* as distinguished from *time wages*.

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[1] Mortality differs greatly according to occupation. The insurance companies recognize this by refusing to insure persons engaged in certain extra-hazardous occupations. In a calculation based on a comparison between the census returns in England for 1881 and the death registers for the three years 1881, 1882, and 1883, and relating only to males between 25 and 65 years of age, Dr. Ogle found the lowest death rate to be among clergymen. Taking this class as a basis (represented by the figure 100), the comparative mortality among lawyers was 152; medical men, 202; farmers, 114; brewers, 245; innkeepers and liquor dealers, 274; file-makers, 300; Cornish miners, 331; earthenware makers, 314.

Dr. Edward Jarvis has shown that, on the average, an Irishman who has reached the age of 20 has 28.88 years to live; a Frenchman, 32.84; an Englishman, 35.55; a Norwegian, 39.61.

"It is evident," says Francis Walker, "that if two persons begin to labor productively at the same period of life and continue at work until death, at the same nominal rate of wages, that one receives the higher real remuneration who lives the longer, inasmuch as the cost of his maintenance during the first unproductive years of life, must, in any philosophical view of the subject, be charged upon his wages during his period of labor."

[2] "The labor on a ton of steel billets and rails in the United States (1901) costs less than in Great Britain, though American wages are higher. The labor cost of a certain grade of shoes in a Massachusetts factory, where

In view of the numerous factors of the problem of wages, we may well ask whether there are in fact any natural laws which regulate the rate of wages. Is not the quest of such laws futile, inasmuch as wages vary from trade to trade, from time to time, from place to place, and in each particular case are determined by the outcome of bargaining between employer and employee?

To reason thus, however, would be erroneous. The price of other things also varies according to time, place, and the nature of the commodity; it also may be said to be the result of bargaining between buyers and sellers. Yet these circumstances do not preclude the existence of laws governing prices. There is no incompatibility between this apparent variability and the existence of scientific laws. Prices and wages are, to be sure, regulated by agreements between men, but these agreements are themselves determined by general causes which it is our task to discover. A well-founded belief in the existence of natural laws in political economy must lead us to hold that when men make contracts they are influenced by certain motives or by certain exterior circumstances which are present in all cases and which can be disentangled from the confused mass of particular cases.[1]

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wages are high, is only 40 cents a pair, but in Germany, where wages are low, the cost is 58 cents a pair. Such results are due to highly trained labor and the best labor-saving machinery and skill in its use, which greatly reduce the cost of products, though the price of labor may be high. Thus the United States, with high-priced labor, is able to sell many of its manufactures in foreign markets in competition with countries in which the price of labor is low." — C. C. ADAMS, "A Text-book of Commercial Geography," 1901.

[1] It is, moreover, quite as inaccurate to say of wages as of prices, that they are fixed by individual contract. Just as there is a general market price that is but little influenced by individual higgling, so there is also a general rate of wages for each kind of labor, — a rate which is quite as binding on employers as on employees.

It would seem, however, that there must be not *one*, but as many *different* rates of wages as there are occupations. There can, in fact, be no doubt about

It is not the province of a scientific law to explain each particular case in all its details, but to formulate those general and permanent tendencies which are present everywhere, although they may be partially overcome or disguised by local, temporary, or accidental circumstances. No one would think of abandoning the law of gravitation as scientifically worthless, simply because flowers grow upward and balloons rise in the air in apparent violation of it.

As, in the present economic organization of society, labor is simply a commodity that is bought and sold on the market,[1] it is evident that the price of manual labor must be determined by the same laws as those which govern the price of any merchandise. These laws we have studied in connection with value, and summarized in the popular doctrine of demand and supply. Cobden condensed this doctrine, as applied to labor, into the classic and picturesque formula: "Whenever two workmen run after one master, wages fall; whenever two masters run after one workman, wages rise."

But the formula of demand and supply, applied to problems of distribution, lacks scientific precision and completeness. Many economists have abandoned it as a law of

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the inequality of wages. But these inequalities can generally be explained by the unequal risks and advantages or disadvantages of particular trades, the unequal duration of apprenticeship, the unequal productivity of labor, its constancy or inconstancy, etc. This topic is the subject of interesting pages by Adam Smith and Professor Alfred Marshall. (See the latter's "Principles of Economics.") If we could estimate the exact importance of each of these elements and eliminate the factors which obscure the fundamental problem, we should find that the *rate of wages is theoretically the same in all trades.* Under a hypothetical system of free competition (and assuming equal abilities, equally long apprenticeships, etc.) all trades would be equally remunerative; for if they were not, workers would abandon the trades that pay less and take up those that pay more, and thus the natural equilibrium would be reëstablished. But as this system of free competition is purely hypothetical, and particularly so with regard to labor, there are in reality wide divergencies in wages. When, therefore, we speak of the "current rate of wages" we mean the wages of common, unskilled labor.

[1] There are, however, several differences between *labor* and other commodities: (1) The worker sells his work, but he himself remains his own

wages, and endeavored to discover a more accurate and satisfactory formula.

Three important wage theories (or groups of theories) have been suggested, each of which has attained considerable celebrity, and each of which has its advocates at the present time.

§ 1. THE WAGES FUND THEORY. For a long time this was the classical English theory of wages. It has played an important part in the history of economic doctrines, and approaches most closely to the popular theory of demand and supply, of which, in fact, it is merely a more precise statement.

The supply, according to this theory, consists of the laborers who are in quest of work and who offer their services in order to earn a living. The demand, on the other hand, consists of the capital which seeks investment. We have learned that the only way to employ capital productively is to supply work of some sort for laborers. The ratio between this capital and the number of laborers determines the rate of wages.

Take the circulating capital of a country, which English economists call the wages fund because in their opinion its purpose is to support the laborers while they are employed

property. When we say that labor is a commodity, it does not follow that the laborer himself is a commodity; the product and the producer are different. (2) When a person sells his services, he has to present himself where they are delivered. As Marshall declares, "It matters nothing to the seller of bricks whether they are to be used in building a palace or a sewer; but it matters a great deal to the seller of labor whether or not the place in which it is to be done is a wholesome and a pleasant one, and whether or not his associates are such as he cares to have." (3) Labor is perishable. The laborer must find employment at once. His energy cannot be stored up. He must, moreover, sell it in order to live, and he cannot withhold it long from the market. (4) Concerted action is more difficult among the sellers of labor than among those that buy it; the latter may take advantage of their stronger position and purchase labor at less than its normal value. (5) The supply of labor cannot quickly be adjusted to the demand for it. A long time is required to prepare and train labor for its work, and the returns which result from this training are realized much later.

productively. Then take the number of laborers. Divide the former quantity by the latter, and the quotient is the average rate of wages. If, for example, the total circulating capital is two billion dollars, and the number of laborers is ten million, the annual average wages will be just $200.

It is evident that according to this theory wages can vary only as one or the other of these two factors varies. A rise in wages, therefore, is possible only in the two following cases: —

(*a*) If the wages fund, *i.e.* the aggregate amount to be distributed as wages, is increased; and the only way in which this can be done is by saving.

(*b*) If the laboring population, *i.e.* the divisor in this simple problem of division, is diminished. This can be done only by having laborers apply the principles expounded by Malthus, either by abstaining from marriage or by having few children.

As John Stuart Mill expressed it: "Wages depend on the proportion between the number of the laboring population, and the capital or other funds devoted to the purchase of labor. . . . If wages are higher at one time or place than at another, if the subsistence and comfort of the class of hired laborers are more ample, it is for no other reason than because capital bears a greater proportion to population. It is not the absolute amount of accumulation or of production, that is of importance to the laboring class; it is not the amount even of the funds destined for distribution among the laborers: it is the proportion between those funds and the number among whom they are shared." "Wages not only depend upon the relative amount of capital and (laboring) population, but cannot, under the rule of competition, be affected by anything else."

Certainly this theory is not encouraging for the future of the working classes. It is to be feared that the divisor (the number of laborers) will increase far more rapidly than the dividend (the amount of available capital); whence it follows that the quotient (wages) must tend to diminish until a point is reached below which it cannot descend. The obvious reason for this is that it is a much easier matter to increase the number of children than to increase the supply of capital; the latter implies abstinence, and the former implies the reverse. Population increases spontaneously; but not capital.

Although the wages fund theory is still held by a number of economists, it is generally discredited.

In the first place, the thought on which it is founded, viz. that a certain, definite amount of circulating capital is necessary for employing laborers, is of interest only with regard to production, not with regard to distribution. To know whether an *entrepreneur* has the means to set laborers to work, that is to say, whether he has sufficient raw materials, equipment, etc., is one thing; to know what share of the proceeds of the enterprise he will be able to yield to his employees, is quite another thing. The first of these matters depends on what he possesses; the second depends on what he produces. The demand for labor depends on the state of industrial activity; but this activity depends in turn on the anticipations and plans of *entrepreneurs* much more than on the amount of capital that they possess.

The apparent exactitude of this theory, moreover, is illusory. When we examine it more closely, it amounts to saying that the average rate of wages may be ascertained by dividing the total amount paid out as wages, by the number of wage-earners. This is simple tautology. Or, if we attach a more sensible interpretation to the theory, it means that wages are higher in a country that possesses a relatively large supply of capital than in one which does not; but this is too self-evident a proposition to require any proof.

We must inquire, finally, whence comes this circulating capital, this wages fund? Obviously, from labor itself. Professor J. B. Clark has suggestively compared the relation between labor and capital to the operation of a pump: "Let a man pump water into a full tank, and get what he wants for use from the overflow; does the water for consumption come from the tank or from the pump? In a sense from both; and if important interests were dependent on the answer given, there would be here an opportunity for a fierce logomachy like that which has actually arisen over the origin of wages. The particular drops which are used come immediately from the tank; but the amount in it is undiminished, and the draught virtually comes from the supply furnished by the pump. Moreover, the size of the tank has no influence on the amount of the overflow; that is gauged by the volume of the inflowing stream. In like manner, wages are taken immediately from a reservoir of capital; but the amount in the reservoir is undiminished, since the quantity which was drawn from it has already been added to it by the stream of products resulting from industry. It is the volume of products which sets limits to the amount of wages."[1]

Probably the most destructive criticism of the wages fund theory was that presented by Thornton, whose celebrated book "On Labour" led John Stuart Mill, who had most skilfully elaborated the wages fund theory, to abandon it. Thornton maintains "that laborers, by combining, may exercise a monopoly influence and so raise the rate of wages"; and if this be true, then there can be no fixed wages fund, the exact amount of which must be expended in wages. If there be a national fund, the whole of which must necessarily be applied to the payment of wages, this fund "can only be an aggregate of smaller funds of the same kind possessed by the several individuals composing the nation. But is there any specific portion of any individual's capital which the owner must necessarily expend upon labor? . . . Does any farmer or manufacturer ever say to himself, 'I can afford to pay so much for labor; therefore, for the labor I hire, whatever the quantity be, I will pay so much?' Does he not rather say, 'So much labor I require; so much is the utmost I can pay for it, but I will see for how much less than the utmost I can afford to pay I can get all the labor I require?'"[1]

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[1] J. B. Clark, "Philosophy of Wealth," page 127.

§ 2. THE IRON LAW OF WAGES. This theory also starts from the fact that manual labor, or the power to work is, under present social conditions, a commodity that is bought and sold on the market. Workmen are the sellers. Employers are the purchasers. But wherever there is free competition, is not the value of all commodities determined by the cost of production? This cost regulates what economists call the *natural price* or *normal value* of goods. The same law must hold for the commodity called manual labor; the price of labor (wages) must also be fixed by the cost of production.

Lassalle, who made much of this theory of the cost of production of labor, and who called it the "iron law of wages" because of its supposed absolute and rigid validity, declares that the price of labor, "like the price of all other merchandise, is determined by the relation of supply and demand. But what determines the market price of any merchandise or the average ratio of supply and demand? The necessary cost of production."[2]

We must now learn the meaning of the words "cost of production" as applied to the person of the laborer. Take a steam engine for illustration. The cost of producing with the engine includes: (*a*) the value of the fuel consumed; (*b*) the sum that each year must be devoted to keeping it in good repair and ultimately replacing it when it becomes unfit for further use. In very much the same way, the cost of production of labor includes: (*a*) the value of the goods which the workman must consume to support himself and maintain his productive powers; (*b*) the amount necessary to replace this workman by another when he becomes unfit for work, *i.e.* the amount necessary for raising the number of children required by society.

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[1] See Macfarlane, "Value and Distribution," Philadelphia, 1899, Book IV; also Francis Walker, "Political Economy," Part VI, Section V.

[2] Lassalle, "Herr Bastiat-Schulze-Delitzsch," Chapter 4.

Thus wages are necessarily determined by the minimum that is absolutely necessary for the support of the laborer and his family. Putting this law in more general terms, wages cannot long remain above or below the amount necessary for the maintenance (subsistence and propagation) of the laboring class.

For thirty years this theory has been repeated again and again by socialistic agitators, like the refrain of a war-song, and has served excellently as a means of intensifying class hatred and fostering dislike of the present economic system with which it is supposed to be inseparably connected. It was used to convince the laboring classes that the present economic organization offers them no hope of the permanent improvement of their hard lot. But although the theory received its characteristic name from the collectivists, and although it owes its wide acceptance largely to them, it was first advanced by classical economists. Turgot was the first to declare that "in every kind of labor the workman's wages must fall to a level determined solely by the necessities of existence." J. B. Say and Ricardo used almost the same words, and have since been roundly criticised for unwittingly laying the foundations for socialism.

To-day, the theory is abandoned. The liberal school, noting what dangerous conclusions might be drawn from this doctrine, disclaimed it most energetically; and the collectivists themselves, particularly Liebknecht, formally disavowed it at the Congress of Halle in 1890.[1]

If we take this theory literally, as meaning that the workman's wages can never rise above what he absolutely requires to live on, it is much too pessimistic and is manifestly contrary to facts. The purely material wants of life are, on the whole, of relatively little consequence. Irish and French peasants find it possible to live on next to nothing. If, then, the indispensable minimum for the bare support of life constituted an "iron law of wages," innumerable commonplace facts would be inexplicable. Why is the rate of wages not the same in all trades? Must an engraver or a skilled mechanic consume more food-stuffs, more nitrogen and carbon, than a stone-breaker or a street-cleaner? Why, moreover, are wages higher in the United States than in France, Germany, or England? Is there any physiological reason why an American should eat more than an Englishman, — despite the fact both of them belong to the same race? Why are wages higher to-day than a century ago, — a fact which is beyond all question? Have we greater appetites than our forefathers? Again, why are the wages of farm laborers lower in winter, when they are obliged to spend more for heating and clothing, than in summer, when food is so cheap and life in the country is so easy that Victor Hugo calls this the "poor man's season"?

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[1] Collectivists, nevertheless, continue to assert that wages are reduced to a minimum. But the reason which they give for this statement is a different and more valid one. They maintain that the permanent existence of a large number of laborers out of work, who are willing to sell their services for any price whatever, affects the market for labor and prevents any permanent rise in wages. They call the unemployed "the reserve army of labor," — an

But this law is sometimes interpreted in a broader sense. It is sometimes taken to mean, not the minimum amount of carbon and nitrogen necessary to keep body and soul together, but the minimum amount needed to satisfy the complex wants of man living in civilized society; this, of course, is a quantity that varies according to the stage of civilization which a society has reached. The law is sometimes taken to mean that the wages of labor are governed by the habits and customs (the standard of living) of the working class to which a man belongs, and by the sum total of wants (physical and social, natural and artificial) which characterize the people among which he lives. If we are

army which helps the employers, not the laborers, by necessarily reducing wages to the lowest competitive basis. This theory really brings us back to the law of supply and demand.

agreed that this standard of living, instead of being an "iron law" is in reality elastic, changeable, fluctuating according to race, climate, and period; and if, moreover, we are ready to admit that the standard of living necessarily and steadily tends to rise with every increase in the number of wants, desires, and exigencies of civilized men; then the above formula is indeed applicable, but almost too optimistic, and promises more than we have any sound reason to hope for. In this interpretation we should speak, not of the "iron" law, but of the "golden" law of wages.

Ask the disciples of Lassalle why the wages of French day laborers in rural districts were formerly so low that they lived on cheap brown bread and wore clogs, whereas now their wages permit them to eat better food and wear shoes; and they will reply that these wages have increased precisely because the laborers have adopted new wants and a higher standard of living. Let us grant this for the sake of argument. If, now, the laborers should adopt the habit of eating meat every day in the week and of wearing flannel shirts under their coarse coats, are we to take it for granted that their wages will rise enough to enable them to satisfy these new wants also? If so, who could be more fortunate than they? For in such a case the wages of the worker would not determine his manner of living; but, on the contrary, his manner of living would determine his wages.

This roseate conception of the law of wages has been presented by an American economist, Mr. George Gunton, in a book entitled "Wealth and Progress." Mr. Gunton argues that wages depend upon what the workingman considers the lowest level on which he can live. In this theory, competition can reduce wages to the lowest limits he will work for, but not lower, because he will then starve rather than work, or organize a strike that will force up wages. A Chinaman receives low wages because he will live on a very low standard. Economical living necessarily means scant wages, and a high standard of living means high wages. One way of developing the workman's wants is by shortening his hours of labor, thus increasing his social and educational opportunities, and so raising his standard of living. For this reason Mr. Gunton is a warm advocate of the movement which aims to shorten the work-day.

In reply to this theory, it is objected that laborers will lower their standard of living rather than starve, especially when there is an abundant supply of labor ready to take the place of those that insist on the higher standard. Machinery, moreover, is constantly discharging men whose particular skill was necessary formerly, but whose work can now be accomplished by cheap labor,—even by the labor of women and children. In some skilled trades intelligent workmen, by means of labor organizations, may maintain a high standard of wages and of living. But unskilled laborers cannot do anything of the sort. The principal argument against this theory consists, as we have indicated, in the fact that it mistakes cause for effect. Wages are not high because the standard of living is high, but *vice versa*. A man does not improve his standard of living in order to raise his wages; but he tries to get better wages in order that he may improve his standard. To get better wages, he must increase his productivity, that is to say, his usefulness to those that employ him. When he has accomplished this, he may expect to receive higher wages and raise his standard of living.

§ 3. THE THEORIES OF THE PRODUCTIVITY OF LABOR. A third theory, or class of theories, although likewise based on the application of the laws of value to the determination of wages, nevertheless reaches conclusions entirely different from those of the wages-fund theory and the iron law of wages. According to this theory the value of labor cannot be compared to that of any ordinary commodity subject solely to the law of demand and supply under free competition. The laborer is not merely a commodity, but an instrument of production; and the value of an instrument of production depends especially on its productivity. When an *entrepreneur* rents land, is not the price which he pays for its hire estimated according to the productivity of the land? Why, then, when he hires labor, should not the rate of wages be proportionate to the productivity of labor?

Although the idea that the productivity of labor determines the rate of wages was clearly set forth by Von Thuenen, the most striking form of the productivity theory is that given by Francis Walker in his book on "The Wages Question," and sometimes designated as the "residual claimant" theory of wages.

Of course this theory does not maintain that wages will be equal to the total product of an enterprise. That would be impossible, inasmuch as there would then be no profit for the *entrepreneur* and he could not continue to employ laborers. But it does maintain that the workman receives as wages *all that remains* of the total product when the three shares (interest, rent, and profits) belonging to the other productive collaborators have been deducted. These three shares are strictly determined in their respective amounts, whereas the worker's share possesses the advantage of not being fixed.[1] In his relation to the other factors of production the wage-worker may be compared to a residual claimant or legatee who takes what is left when the other heirs have received their stated shares of an estate.[2]

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[1] "The wages of a workingman are ultimately coincident with what he produces, after the deduction of rent, taxes, and the interest of capital." —STANLEY JEVONS.

[2] Walker's theory rose out of his protest against the wages-fund theory. Wages, says Walker, are not dependent on capital; because men without capital can and do often employ labor, provided that they can know that the laborers employed will produce enough value to enable them to pay the laborers out of the product and leave a balance for the employer. Farm laborers sometimes receive merely their board until the harvest comes, whereupon they receive the rest of their remuneration. "The employer purchases labor with a view to the product of labor, and the kind and amount of that product determine what wages he can afford to pay."

There are laws for rent, for profits, and for interest, definitely fixing the amount that can be claimed by landlords, employers, and capitalists.

This theory, if sound, would be quite as encouraging as the wages-fund theory and the iron law of wages were discouraging. For if the rate of wages depends solely on the productivity of the workingman's labor, his welfare is entirely in his own hands. The more he produces, the more he will earn. Everything that increases his productivity — physical development, mental superiority, technical training, inventions, and machinery — will inevitably increase his wages.

Whereas the wages-fund theory was too rigidly pessimistic, this doctrine is probably too optimistic. Yet both theories lead to similar conclusions with regard to the effectiveness of combinations among laborers. They both make it appear impossible for labor organizations to improve the condition of the working classes. For if the laborer is a residual claimant, it must be true of him, as it is of the residual legatee of an estate, that he is powerless to increase or decrease his share in distribution. Walker, moreover, himself makes the rather important qualification that the laborers will get this share, "unless by their own neglect of their interest, or through inequitable laws, or social customs having the force of laws," any one of the other three parties carries away something in excess of his normal share. Walker also points out that the laborer may lose his advantage by "weak, spasmodic, or unintelligent competition with the employing class." We may well ask, therefore, whether it does not follow that the laborer's share depends, in the last resort, not so much upon his residual claim as upon his power to have and to hold? Does not the statement that an increase in the product goes to the laborer "by purely natural laws, *provided only competition be full and free*,"

"These three shares being cut off the product of industry, the whole remaining body of wealth, daily or annually created, is the property of the laboring classes, their wages, or the remuneration of their services. So far as by their energy in work, their economy in the use of materials, or their care in dealing with the finished product, the value of that product is increased, that increase goes to them by purely natural laws, provided only competition be full and free."

contain an exceedingly important provision that is but rarely fulfilled in the case of labor?

In the light of this theory the wages contract would be even more advantageous to employees than partnership or profit-sharing, because the workman alone is supposed to receive the entire increase in the product; the other collaborators in the productive process receive only fixed shares which tend, relatively speaking, to diminish.

A simple enumeration of the conclusions to which this theory leads is sufficient to show how little, unfortunately, it is justified by facts. We are ready to admit that the productivity of labor influences the rate of wages by increasing the general wealth of a country; that by thus augmenting the sum total of wealth for distribution it must ultimately increase the share that goes to each productive factor, and must therefore help to increase wages. We are also perfectly willing to admit that the productivity of labor exerts a *differential* influence on the rate of wages; that is to say, whenever a particular laborer or a particular kind of labor is more productive than others, more wages are usually paid. But this theory leaves in the background one of the most essential factors of the problem, viz. the abundance or scarcity of labor, the effect of which is oftentimes preponderant. Consider, for illustration, the United States. The productivity of labor in this country has increased enormously during the past twenty years; but the rate of wages, although it may be higher now than then, has by no means kept pace with the increased productivity of labor. Why not? Because the number of proletarians in this country has been largely increased by the immigration of foreign laborers, the decreasing supply of desirable land,[1] and other circumstances tending to augment the supply of labor more rapidly than the demand. These, in fact, are some of the factors which lead trades unions to try to control the supply of labor.

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[1] "Wherever there is an abundance of free land, hired laborers find it easier to maintain a high standard of living. In this country it has been so easy

There appear to be valid reasons for abandoning the productivity theory in the form given to it by Walker. But we need not hesitate to admit the element of truth contained in the "productivity" idea. An attempt has been made to elaborate this idea more scientifically by the economists who accept the doctrine of final utility. (See pages 54 ff. and 189 ff.) Indeed, it is maintained that the greatest importance of the final utility doctrine consists precisely in its applicability to the problems of distribution. The German economist Von Thuenen was not only the first to develop this doctrine as a scientific explanation of value, but he appears also to have been the first writer to apply it to the solution of the problems of rent, wages, and interest.[1]

According to this school of thinkers the rate of wages is determined by the *marginal productivity of labor*: There is in every business enterprise a point beyond which it will not pay the *entrepreneur* to hire more laborers. Additional laborers, like additional increments of any commodity, usually possess less value, less utility, than the preceding ones. (See the section on the Laws of Consumption.) Each new laborer furnishes a decreasing utility to the employer, until a point is reached where the cost of an additional laborer would be greater than the value resulting from

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for laborers to acquire fertile land and to engage in farming on their own account, that the supply of hired laborers has been reduced quickly and easily whenever wages have fallen below the income that could be secured from agriculture. In the future, American wages will be less affected by this influence." — Bullock, "Introduction to the Study of Economics."

[1] The translator of this work has endeavored, in an essay entitled "Thuenen's Wertlehre" (Halle, 1896), to give Von Thuenen his proper place in the history of economic doctrines by proving that he was the real author of the theory of final utility.

In the second part of his remarkable, albeit fragmentary, work, "Der Isolirte Staat" (1850), Thuenen set forth theories of wages and interest. He had already worked out a theory of rent in the first part of his book, published in 1826, before having cognizance of Ricardo's theory. Throughout these theories of distribution the idea of marginal utility constituted a fundamental part of Thuenen's argument.

his labor. For a time, to be sure, the value of the product may increase more rapidly than the cost of labor; and as long as this is true, we may speak of a "law of increasing returns." But sooner or later the point must be reached beyond which it does not pay to employ additional capital or labor, because each increase in the amount of labor will mean a less than proportionate increase in the total value of the product. Thuenen illustrated this principle by an example drawn from agriculture, in which the point of diminishing returns is reached more rapidly than in manufactures. (See page 92.) Take, says Thuenen, the work of gathering the potatoes that have been raised on a given area of soil. Suppose the total quantity is 100 bushels. Obviously, it is never possible to gather all of the potatoes actually grown; but by increasing the labor employed in digging over the soil, the proportion left in the ground may be reduced to a minimum. The results are indicated by the following table: —

Laborers employed	Bushels gathered	Increase	Laborers employed	Bushels gathered	Increase
4	80	—	8	96	2.
5	86.6	6.6	9	97.3	1.3
6	91	4.4	10	98.2	0.9
7	94	3.			

The intelligent farmer will continue to employ additional laborers only as long as each laborer produces more than the equivalent of his wages. If, in the above example, the wages of each laborer represent the value of one bushel, it will not pay the farmer to hire the tenth laborer. The employer's total profits are largest if he ceases to employ labor after the ninth person. To give the tenth man wages of one bushel for adding only nine-tenths of a bushel to the total product may be excellent philanthropy, but it is poor farming.

If the employer hires more laborers, despite the fact that additional laborers cost more than their product is worth, he will ultimately be compelled to give up farming. And as most producers are not engaged in business for purposes of philanthropy, but for profit, every *entrepreneur* (whether he be a farmer or a manufacturer) will endeavor to attain precisely the point at which profits are highest. Now the net profits of any business are greatest when the number of laborers has reached (but not passed beyond) the point where the last laborer still produces more additional value than he costs his employer. If the labor of the last man is the same as that of the others, — and we have supposed that it is, although the results of his labor are, of course, different because of circumstances beyond his control, — it is evident that all laborers will receive the same wages, because different wages cannot be paid for like labor. These wages, moreover, cannot be greater than the productivity of the last laborer employed.

The term *last* or *additional* laborer must not be supposed to mean the last laborer actually employed, for all the workers may be hired at the same time. What the term means may be made clearer by the following illustration.

Here, let us say, is a manufacturer who is sure of an excellent market for a certain kind of goods. Suppose that he possesses all the necessary equipment and material for production — everything except labor. For such an *entrepreneur* the first score of laborers would probably be extremely necessary, and produce an extremely valuable output. He could therefore afford to pay them, if necessary, very high wages. Probably it would still be profitable for him to employ a second score of workmen; but the resulting increase in the supply of goods would, in the long run, decrease the value of each article produced, for the very simple reason that an increase in the supply — other things being equal — must necessarily depress values. It must be particularly borne in mind that the workers in the second group possess precisely the same skill and ability as the first group. The value which their labor creates will, to be sure, be somewhat less than that of the first group. But this is due to no fault of theirs. It is the simple and natural consequence of economic forces from which there is no escape. In the example quoted from Thuenen it is not unlikely that the nine laborers were employed simultaneously; in such a case it would manifestly be absurd to pick out any particular laborer as the "last" laborer, or the laborer who "produces least," yet, to all intents and purposes, there is — logically, not chronologically — such a "last" laborer.

We have already admitted that in manufactures the law of "increasing returns" may result in a more than proportionate gain for every additional laborer. It is quite possible, for instance, that whereas one laborer working alone produces 4, and another working alone produces 4 also, both together may produce 10. Take either of them away, and the product is reduced by 6. It would, in this case also, manifestly be absurd to attribute a productivity of 4 to one laborer and of 6 to the other, or to maintain that the laborer who happened to be employed last in point of time produced less than the other. The employment of additional laborers, however, will, even in manufactures, ultimately find a limit beyond which it would be unprofitable for the *entrepreneur* to go. This point is reached when the product made by the "last" or "marginal" laborer (the latter term is less ambiguous than the former) will possess a value scarcely greater than the cost of his labor to the employer, *i.e.* his wages.[1]

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[1] The "marginal productivity theory" outlined above possesses the merit of easily explaining the close relation between labor and capital as factors of production. To a considerable degree, labor and capital may be substituted for each other. As a matter of actual business practice, the *entrepreneur* may often choose between employing more laborers or employing more capital. The amount that he will employ of each of them depends partly on their utility and partly on their cost. (See the section on the Nature and Laws of Consumption.) Where labor is expensive and capital comparatively cheap (*i.e.* as compared with labor), the use of additional increments of capital

As, according to the law of indifference, there cannot be unequal wages for equal labor, the wages received by the "marginal" laborer (the laborer whom it just pays the *entrepreneur* to employ) must determine the wages paid to all the other laborers of the same kind and the same ability. It may therefore be said that the wages of labor are indeed equal to the product of the laborer, but of the laborer who finds employment under the least favorable conditions. Dr. Stuart Wood summarizes the whole theory thus, "The price of all labor is regulated, as are the prices of all commodities, by its final utility; by the utility, that is, of the portion which comes into use last; that portion, in short, whose services are least useful and least highly valued."

It is obvious that this theory is practically an extension — some writers would say a misuse — of the law of diminishing returns, which occupies so important a place in the theory of land rent. It is a wider application of the rent doctrine; the advocates of the theory, and foremost among them Professor J. B. Clark, speak constantly of "distribution by a law of rent."[1]

The reader will recall that when we first discussed the problem of value (page 63), we could not point out *the* cause of value, for the simple reason that there are *several* causes. We must reach a similar conclusion with regard to

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will continue longer than where the reverse is the case. In our Western states, for example, it is found more profitable to employ capital than labor, whereas the conditions which prevail in Russia, for instance, would dictate the employment of more labor rather than more capital.

[1] To Professor Clark, in particular, is due the credit of having also pointed out the difference between a *dynamic* and a *static* theory of wages. The static theory explains wages on the supposition that the present economic forces continue to operate precisely as they do, without modification, and that free competition works in ideal perfection. "The static rate of wages, toward which actual wages are always tending, is fixed by the productive power of labor itself, and whatever changes that productive power raises or lowers this standard. Workingmen are creating daily certain amounts of wealth; and if the changes and disturbances that social progress implies should cease, and if certain causes of friction were removed, every man

wages, and admit that there is probably not *one* determinant of wages, but *several*, operating with varying degrees of influence at different times and under different circumstances. All the forces that influence the value of merchandise also affect the value of manual labor. There are, moreover, other determinant influences peculiar to wages, — such as public opinion, threatened strikes, and, above all, the growing consciousness among workers of their rights and their social importance.

IV. The Increase of Wages

The gradual increase of wages during the past century seems beyond question. Innumerable statistics from all countries show that wages in agriculture as well as in manufactures have been more than doubled during the nineteenth century. There is, to be sure, much difference of opinion among statisticians with regard to the precise extent of the increase of wages. And in view of the almost insurmountable difficulties involved in the collection of reliable wage statistics, it is questionable whether the cautious economist can attach any scientific value to the wage and price statistics published from time to time by various authorities, official and unofficial. The Twelfth Census of the United States refrains scrupulously from drawing any conclusions with regard to the probable rise or fall in wages from 1890 to 1900.[1]

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would get, as his pay, the amount that he actually produces. Ten years hence men will work in a different manner and with different appliances, and if we could then stop the influences of change and let competition again do its full work, we should find them getting amounts that would correspond to their changed powers of production." ("The Dynamics of the Wages Question," Proceedings of the American Economic Association, February, 1903.)

[1] See Vol. VII of the Twelfth Census, pp. cxi ff. Concerning the difficulties encountered in getting, and in making any scientific use of, wage statistics, the reader should consult an article by Professor Mayo-Smith in Vol. I, No. 1, of the *Political Science Quarterly*, and the same author's "Statistics and Economics." An article on this subject, bringing out

According to the celebrated Aldrich Senate Report of 1893 the relative rate of wages in the United States,[1] in all occupations, from 1840 to 1891 (taking the rate in 1860 as equal to 100), fluctuated as follows: —

Period	Single Average	Average according to Importance	Period	Single Average	Average according to Importance
1840–1844 . .	87.2	82.5	1870–1874 . .	164.1	165.8
1845–1849 . .	90.2	89.6	1875–1879 . .	147.0	146.7
1850–1854 . .	92.3	92.6	1880–1884 . .	148.7	152.2
1855–1859 . .	98.9	98.5	1885–1889 . .	153.5	157.8
1860–1864 . .	108.0	111.4	1890–1891 . .	159.8	168.4
1865–1869 . .	154.9	160.1	(2 years)		

This, apparently, is an enormous increase. Yet we must not overlook a number of circumstances which make the increase less considerable, and less beneficial than we should at first suppose it to be. We have already pointed out, in a previous section of this chapter, that in ascertaining the actual condition of laborers, several important matters must be taken into consideration.

(1) In the first place, this increase of wages is partly *nominal*, and due in a measure to the depreciation of money. Should money lose half its purchasing power, what does it matter to the workman if his wages have increased from $1 to $2 per day? He has really gained nothing by the change.

Price statistics are therefore the indispensable complement of wage statistics. But in getting and in employing price

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various conflicting results with regard to the actual changes in the rate of wages is contained in Bliss' "Encyclopedia of Social Reform."

[1] The French Labor Bureau (Office du Travail) prepared the following table for the Paris Exposition in 1900, showing the increase of wages in France during the nineteenth century. (The rate for 1892 is taken as equal to 100.)

1806	45	1860	70
1830	49	1880	93
1843	53	1892	100
1856	61	1900	103

statistics as the basis for scientific inferences we encounter quite as many difficulties as in the case of wage statistics. Satisfactory records of prices are, from the nature of the case, records of wholesale prices, while the laborer's expenditure is a retail expenditure, and retail prices vary from time to time and from place to place in the most arbitrary fashion. Variations in the general purchasing power of money, therefore, give us no certainty with regard to the changed purchasing power of a workman's wages. There may have been a *general* decline in prices simultaneous with a rise in the price of food or fuel or some other equally important article of the laborer's budget. (See the section on the Nature and Laws of Consumption.) In any estimate of the changed purchasing power of wages, we must be careful not to attach equal importance to the prices of all commodities, but to give exceptional weight to those commodities which are the laborer's principal items of expenditure.

There seems but little doubt that money has lost some of its value during the past century, and that this depreciation of money has caused a general rise in prices. About 1870, however, the rise in prices seems to have ceased for a while, and temporarily given place to a fall. Since 1897, on the other hand, there has been an almost uninterrupted rise of prices.[1] But the workman is most concerned with the prices of those goods which figure largely in his budget. Certainly a large number of food products, such as meat, vegetables, and butter, have increased in price. The cost of renting houses and apartments has also increased. All of these things play an important part in the laborer's expenditure. Bread, on the other hand, which is quite as important an item, has not increased in price. As we shall point out later, in discussing the laws of consumption, the smaller the income the greater is the relative importance of the price of food for the workingman's family. Thus, in families having an annual income of less than $200, food constitutes about half the total expenses, whereas in families having $1200 or over, it represents only one-fourth of the total consumption. We should also note that there has been a fall in the price of many important commodities; among these are sugar, spices, and manufactured goods, such as clothing and furniture. Still more remarkable has been the decrease in the cost of transportation, correspondence, and education.

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[1] The Course of Wholesale Prices from 1890 to 1902 is the subject of Bulletin No. 45 of the Department of Labor (March, 1903).

Having already given the wage statistics reported by the Aldrich Senate Committee, we quote the price statistics given by the same authorities. These tables give the relative prices (in gold) by five-year periods; the second column gives the price for all articles simply averaged; the third column averages the price of all articles according to their relative importance as estimated by the committee's statisticians. To facilitate comparison, we give the wage statistics in the fourth column.

Period	Prices (averaged)	Prices (estimated)	Wages (gold)
1840–1844	108.8	93.0	87.2
1845–1849	103.2	93.3	90.2
1850–1854	100.6	99.4	92.3
1855–1859	108.2	107.1	98.9
1860–1864	108.1	95.3	91.6
1865–1869	118.7	103.9	105.3
1870–1874	121.8	109.4	145.4
1875–1879	103.8	102.0	138.5
1880–1884	105.3	104.4	148.7
1885–1889	93.2	96.7	153.5
1890–1891	92.3	96.0	159.8

It is probably not far from the truth to assume that the cost of living for the average workingman's family has increased about one-third since the beginning of the nineteenth century; and as wages have increased considerably more than this, we may logically infer that the condition of the workingman has improved,—his *real wages* have increased.

(2) The increase in wages, though real, has *not been proportionate to the growth of general prosperity*. In other words, the wages of labor have increased more slowly than the income of the other classes of society. Suppose that the social surplus divided between laborers and capitalists fifty years ago was two billion dollars, each class receiving one billion. Suppose that to-day the surplus has increased to four billion, of which the laboring classes get one and one-half billion and the capitalists two and one-half billion. In this case the increase of wages, though real, would not mean a genuine improvement in the condition of laborers, their share having increased but 50 per cent, while that of the capitalists has grown 150 per cent, or three times as rapidly. To be sure, the wage-earners would be better off than before, absolutely speaking. But they would not *feel* any richer than before, because riches are purely relative. The nature of man is such that even prosperity, if in strong contrast with the greater prosperity of those around him, may seem like poverty.

From the standpoint of social justice we must admit that the laboring class is entitled, not only to a positive improvement in the conditions of life, but also to an increase of income at least proportionate to that of the other social classes. Statistics, however, seem to show that the income of the working classes has not kept pace with the general growth of wealth.[1]

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[1] The total wealth of France, for example, appears to have increased sixfold during the nineteenth century, — an increase manifestly much greater than that of wages, inasmuch as the latter have only doubled during the same period. Yet, as Professor Paul Leroy-Beaulieu has pointed out, this great increase of national wealth is partly an *apparent* increase of capital, not a *real* increase, because of the changed rate of capitalization, which is in turn due to a fall in the rate of interest. An independent income of, say $3000, from the ownership of government bonds or other securities, was capitalized thirty years ago at $60,000, whereas it is now valued at $100,000 because the rate of interest has fallen from 5 to 3 per cent. Yet the income which goes to the owner of these securities is really no greater now than then.

(3) It should be noted, finally, that the "average wages" given by statistics are assumed to be paid *regularly throughout the year*. But in many trades there are frequent periods in which it is impossible for the wage-earner to be engaged productively; these periods of obligatory inactivity are called *dead seasons*. Again, there are large numbers of workmen who cannot find employment of the kind for which they are fitted, and who therefore do not earn any wages at all during part of the year, or who must turn to lower occupations with poorer pay. A large number of laborers, moreover, are employed only part of the week, or part of the day, or are frequently "laid off" for considerable periods.[1] The danger of "losing work" threatens the laborer constantly; unemployment is becoming a chronic ailment of our present economic system, and may involve an enormous reduction in the annual wages actually received by the laborer. This danger is all the greater when, as we shall see is now the case, there is no effective means for providing against it.

Is this rise of wages due to natural or to artificial causes; that is to say, has it taken place spontaneously, or is it due to the influence of laborers, or to that of the government, or perhaps to that of the employers themselves?

The uncompromising members of the classical school do not believe in the existence of artificial means for increasing wages, any more than they believe in artificial means for raising prices. They maintain that the rate of wages is determined by natural laws, and for this reason is beyond the influence of human intervention. To suppose that a labor organization, or the decrees of law, or even the generosity of an employer can cause an increase of wages, is as puerile as to suppose that we can cause fine weather by shaking the barometer. There are, to be sure, cases in which a successful strike has been followed by an increase of wages. But, the ultra-liberals declare, in such a case wages were bound to rise anyway. A strike may act in much the same way as a light tap on the glass of a barometer, causing the instrument to adjust itself a trifle more readily to the forces operating on it and therefore to take its proper position more quickly. They declare, — abandoning the figure of speech, — that all we can do is to make labor more mobile, quickly transferable from one place to another, or from one occupation to another, by giving the widest possible scope to the law of demand and supply. This alone is sufficient to cause the price of labor to rise gradually, as the result of that general increase of wealth which naturally takes place in prosperous communities.

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[1] Mr. Carroll D. Wright, United States Commissioner of Labor, and certainly a conservative authority for matters of this sort, said, in 1886, that there are probably one million unemployed persons in the United States *at any one time*. Even laborers who have regular employment are out of work for months at a time. In Massachusetts in 1885 the average loss from this source for all the employées in the state was five weeks in the year. In 1886, reports concerning 85,329 representative workingmen showed an average time at work of 37.1 weeks, or only 71.3 per cent of full time. In England, Baxter estimates that the great body of working people are employed from 41 to 44 full weeks per year.

A proof of this, they maintain, lies in the fact that the increase of wages has by no means been confined to occupations in which there are most strikes. On the contrary, it has come to workers who never strike at all, and who are not even organized; *e.g.* agricultural laborers and domestic servants.

There is no doubt that the increase of wages during the nineteenth century is due largely to natural causes, or rather to economic causes which may be summed up in the phrase: increased productivity and increased general wealth. But there are also other causes, foremost among which is the growing and deepening sentiment on the part of workingmen that they are entitled to an increasing share of the wealth which they have helped to produce. We must not forget that fixing the price of manual labor, like fixing the price of any other commodity, always pre-supposes a certain amount of higgling; and if the two parties to the transaction are of unequal power or knowledge, the greater advantage will always accrue to the stronger party. The intervention of law, the influence of labor organizations, and sometimes strikes, are effective means of accomplishing a new and more favorable adjustment of wages.

V. The Hours of Labor

Wages are only one aspect of the worker's life; the length or quantity of labor is quite as important a matter. The worker's condition may be improved by reducing his work, as well as by increasing his pay.

Shortening the work-day is one of the reforms to which great importance is now attached. Socialists regard it as a means of emancipating the laborer, of liberating him from the exploitation of employers, and of preparing him for the social and political struggle for class supremacy. Laborers generally regard this reform as meaning less work with the same wages, — perhaps with even higher wages, because of the artificial scarcity of labor resulting from less hours of work. But the greatest significance of this movement lies in the fact that it gives increased opportunity for the intellectual, moral, and even physical improvement of the laboring classes, by providing the leisure necessary for *re-creation*, that is to say, by enabling the workers, during a greater part of each day, to cease being mere productive machines and to become *men*. A man's trade should not be his sole occupation; some time and attention should be devoted to home life and to the occupations of citizenship.

It is often said that modern business relations are so complex, and competition among modern nations so intense, that it would be difficult for one country to shorten the day of labor without placing itself in a position of exceedingly dangerous competitive inferiority. An effort has therefore been made to reach some international agreement among civilized nations with regard to the hours and conditions of labor; but this international problem is much more difficult of solution.[1] Without doubt, international regulation of such matters as this is desirable; but each nation should not make this a pretext for waiting until others take the first step. Experience has demonstrated that countries which are ethically far enough advanced to limit the hours of work are also sufficiently advanced industrially not to fear the competition of countries having longer work-days.

This problem, however, cannot be solved without due reference to the sex and age of the individual worker; we cannot apply the same principles indiscriminately to the labor of men, women, and children.

§ 1. *Child Labor.* All civilized countries, with but a few shameful exceptions, forbid the employment of young children in factories and workshops. But the age limit, below which children are not allowed to work, varies from nation to nation, and in the United States from state to state. "The underlying idea is that children should be withdrawn from the stunting influence of confinement in workshops; and that they should attend school and become fitted for future usefulness."

Usually the law provides that no child under ten years of age shall be employed, and that those from ten to fourteen must have a certain amount of schooling and a sufficient amount of time for rest and recreation. For these, as well as for "young persons" aged from fourteen to eighteen, there are limitations with regard to the number of hours per day, interruptions for rest and meals, the allowable amount of "overtime," and rest on holidays and Sundays. Certain dangerous or unhealthful occupations are sometimes entirely forbidden to children and minors, and night-work is in most occupations not allowed to persons of less than eighteen years of age.[1]

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[1] In April, 1890, an international conference on labor questions, called by the Emperor of Germany, met at Berlin. The conference passed a series of resolutions; but having no power to bind the nations represented at the conference, they have continued to be merely *desiderata.*

In 1900, an International Association for the Legal Protection of Workers was founded at Paris, at the instigation of several French and Belgian professors of political economy. The central office of this organization, which meets annually, is at Bale, Switzerland.

It must not be supposed, however, that these humanitarian limitations on the labor of children were enacted without opposition. The campaign against child labor, begun in England in 1802, owes its ultimate success in 1844 to the heroic perseverance of the Earl of Shaftesbury. "The beginning of the present century," says Francis Walker, "found children of five and even three years of age in England working in factories and brick-yards; found the hours of labor whatever the avarice of individual mill-owners might exact, were it 13, 14, or 15; found no guards about machinery to protect life and limb; found the air of the factory fouler than language can describe, even could human ears bear to hear the story." As there were practically no facilities for boarding the thousands of children that were herded together in the factory towns of England, "apprentice houses" were built for them, — miserable barracks where they were placed under the care of superintendents or matrons. When the demands of trade were active they were often arranged in two shifts, each working twelve hours, one set climbing into bed as the other got out. They were frequently required to snatch their coarse food while the machinery was in motion, and much of the time which should have been devoted to rest was spent in cleaning the machinery.[1]

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[1] A statement of the per cent of children employed in the United States is given on page 135, note 2. The last census states that in 1900 there were 1,755,210 persons between 10 and 15 years of age employed in gainful occupations. These figures are probably much too small; recent investigations in several states indicate a much larger number than the census reports. The student will find a somewhat too optimistic discussion of this matter in Carroll D. Wright's "Practical Sociology" (1902).

A summary of European labor laws may be found in Volume XVI of the Report of the U. S. Industrial Commission (1901) and in Emma Brooke's "Tabulation of the Factory Laws of European Countries" (London, 1898). A summary of our own labor laws may be found in Volume V of the Report of the U. S. Industrial Commission (1900) and the second special report of the U. S. Commissioner of Labor for 1896, supplemented by the bi-monthly bulletins of the Department of Labor. These bulletins also contain (Nos. 25, 26, 27, 28, 30, and 33) excellent sketches of the labor legislation of foreign countries, written by W. F. Willoughby.

The adversaries of laws against this state of affairs argued that it was the business of the parents to look after their children, not that of the state. Although there may have been some exaggeration in the extremely sombre picture drawn by the advocates of factory laws, there can be no doubt that there was a most abominable traffic in the labor of children, conducted on a very large scale.

§ 2. *The Labor of Women.* In the case of women the problem is more difficult. With the introduction of machinery under the so-called factory system, it became possible and profitable to employ the labor of women, which is cheaper than that of men. So many occupations, moreover, have recently been thrown open to women that there has been a rapid increase in the proportion of females to the whole number of persons engaged in some of the principal trades and professions.[2] The fear has therefore been sometimes expressed that women are crowding men out of employment.

Some persons have advocated the entire exclusion of women from factories and workshops. They urge, in favor of this measure, that the industrial employment of women destroys the family and the home, gives rise to a terribly high death-rate among the children of women thus employed, and exposes women and girls to morally and physically pernicious influences; in the case of pregnant women, the health of the mother and child is jeopardized, and the risk of abortion and still-births is greatly increased.

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[1] See Cheyney's "Industrial and Social History of England" (Macmillan, 1901).

[2] Harriet Martineau in 1840 found only seven employments open to women — teaching, needle work, keeping boarders, working in cotton mills, in book binderies, type-setting, and household service.

In the United States, women artists and teachers of art increased from 10.10 per cent of the total in 1870 to 44.3 per cent in 1900. In the occupations of book-keepers, clerks, and saleswomen, the rise was from 3.47 per cent in 1870 to 21 per cent in 1900; in telegraph and telephone operators from 4.27 per cent to 30.1 per cent in the same period. Of the whole number of public school teachers in the United States 69.7 per cent, and in some of the New England states more than 91 per cent, are women.

But, on the other hand, it should be urged that at a time when so much is being said in favor of the emancipation of women and the equality of the sexes, it would be strangely illogical to prevent women from earning a living by their own labor. Unmarried women find it hard enough now to earn an honest living; their condition would certainly not be improved by closing the factory doors to them. It would be necessary, at all events, to exempt from this prohibition all those women who have no husbands or children, and who consequently have no one to support them.[1] The outcome of this discussion, therefore, is a sort of compromise. Women are usually not forbidden to work in factories, but in many countries they are not allowed to engage in certain dangerous or objectionable kinds of labor, such as mining; in some countries night-work, and work during a period of several weeks after child-bearing, are likewise prohibited.

There is no general law in any of the United States limiting the hours of labor of adult women; but fifteen states limit the length of female labor in factories and mechanical or industrial occupations, — usually to 10 hours a day and 60 hours a week.

§ 3. *Adult Male Labor.* In the case of adult males the problem of legal limitation is even more difficult. It is, of course, entirely out of the question to *forbid* their labor in factories. The question is whether it should in any way be limited or restricted. The liberal school argues that adult individuals ought to be entirely free to regulate the use of their time and of their labor, and that they are the best judges of their own interests. But to this assertion we may reply that, as a matter of fact, under the present system of large-scale production, this liberty is impossible. The laborer must start work when the factory whistle blows; he must stop when the factory stops. No matter what may be his own desire in the matter, he must work the number of hours exacted by the employer, or, rather, the number required by custom or by competition. There is no scope for the choice or the liberty of the individual laborer. The question, therefore, is whether or not a reduction of hours would contribute to the welfare of the working class as a whole, and whether, considering the question in a still wider aspect, such a reduction would result in an improvement of the human race. The experience of countries in which this reduction has already been carried out seems to furnish conclusive evidence on this point.

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[1] To do this would, however, probably discourage marriage and legitimate maternity, and this would be the worst possible measure for such a country as France, for example, in which there are even now too many bachelors and too many sterile marriages.

We are naturally disposed to believe that a decrease in the hours of labor would necessarily mean a diminution of the product and a fall in wages. This, in fact, is the usual objection to shortening the work-day. Actual experience along this line, however, proves quite the contrary. Laborers who work for a shorter period, who are less exhausted by long-continued labor, and who have more time for intellectual, moral, and physical development, will produce more; and if they produce more, it is extremely improbable that their wages will be diminished. As a matter of fact, the countries in which the day of labor is shortest (Australia, England, and the United States) are also those in which the highest wages are paid and in which the product per laborer is greatest.[1]

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[1] This theory must not, of course, be carried to the absurd extreme of maintaining, as socialists are in the habit of doing, that the shorter the work-day the greater the product. Socialists sometimes also advance contradict-

Limitation of the hours of labor by law, however, is still the exception rather than the rule. France set the example more than half a century ago by the law of 1848, which fixed the maximum daily period of labor at twelve hours. But this law, which was then far in advance of economic evolution, remained a dead letter until quite recently.

In the United States numerous statutes have been enacted regulating the hours of labor, although as a rule the courts are inclined to insist that the law shall not interfere in the purchase and sale of labor more than in dealings in any other commodity. Many of the state laws, therefore, merely fix what shall be regarded as a full day's labor in the absence of any contract between the parties; others, under the police power of the state, fix the hours of labor in occupations specially dangerous or unsanitary, or in which the safety of the public is specially concerned. Seven states have passed laws declaring that eight hours shall be regarded as a lawful day's work in general occupations unless otherwise expressly agreed. In six states the time is fixed by statute at ten hours. The hours of labor in work done directly for the state or any municipal corporation have been limited in many states, as well as by act of Congress, which has power to prescribe hours of labor on government works although territorially they are not within its jurisdiction.

Laborers themselves naturally advocate a shorter work-

ory arguments by asserting, on the one hand, that shorter work-days will make labor more productive, and, on the other hand, that shorter work-days will give employment to a larger number of laborers, and thus do away with the "army of unemployed." It is perfectly obvious that if a shorter work-day does not curtail the product, there will be no need for employing additional laborers. These two arguments are incompatible.

The truth of the matter is that a shorter work-day may very well be accompanied by an increased *intensity* of labor, and, consequently, increased productivity. But this result can be attained only among exceptional, highly civilized peoples, capable of very intense labor, and in countries possessing very complete industrial equipment.

day than is now customary. Like the old English song, they want

> "Eight hours for work, eight hours for play,
> Eight hours for sleep, and eight shillings a day."

This minimum, however, has nowhere been established by law; and as a matter of fact the eight hour work-day exists in very few countries.[1]

VI. Trades Unions

Under ordinary circumstances the workman who deals individually with the employer is at a considerable disadvantage. There are three reasons for this: —

(1) The capitalist can wait, whereas the laborer cannot. The latter possesses a commodity which he *must* sell in order to live; this commodity is his labor.

(2) As a rule, the *entrepreneur* can get along without the workman, when the latter stands alone, whereas the workman cannot readily dispense with the employer. It is an easy matter to find another laborer; laborers can be imported from abroad, if need be, or their place can be taken by a machine. But it is not so easy to find a new employer; employers cannot be induced to come where the laborers want them, and we have not yet discovered a machine that will take their place.

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[1] In England the day of labor is usually nine hours long; in the United States, from eight to nine hours; in Australia it has been eight hours since half a century ago. These limitations, however, are not due to law, but to the influence of labor organizations.

The eight-hour day was obtained by the working classes in Australia sooner than in the United States or in England because of the great distance which separates Australia from other civilized countries, and which protects it to some extent from the competition of foreign labor.

There are a number of countries which, like the United States, limit the number of hours per day for the labor of government employees. This limitation, however, does not apply to labor under private contract, — a circumstance which we must be careful not to overlook.

(3) The *entrepreneur* is more familiar with the condition of the market; he has better opportunities for grasping the whole economic situation and taking advantage of it. It is easy for him to reach an understanding with his competitors, or at least to know what they are doing.

For these reasons the labor contract has generally been a *free contract* in name only. As long as workmen are obliged to deal individually and separately with the head of a large industrial concern, they cannot protect their own interests or even debate the rate of wages. All they can do is to accept or refuse the terms offered by the employer; and under the pressure of want they are obliged to agree to the employer's proposition.

But when laborers in the same trade form an organization, employer and employee are more likely to be on an equal footing, for the following reasons:—

(1) Labor organizations enable the workman to refuse to work when the terms of employment are unsatisfactory; they support him, during the period of unemployment, by means of dues or assessments contributed by the members of the organization. When these organizations possess sufficient means, they set aside a fund for the support of unemployed members, in order to prevent workmen from being obliged to accept the unfavorable terms offered by employers.

(2) Labor organizations unite all the workmen in each branch of production; hence, the employer cannot deal with individual laborers, but must transact with a whole group of laborers or their representatives. The individual labor contract, which ought not to be called a "contract" at all, thus gives way to *collective bargaining*.

(3) Labor organizations provide, so to speak, bureaux of information for laborers: they make it possible for them to have competent and experienced leaders, who are quite as capable of familiarizing themselves with the industrial situation as the employers, and who are therefore able to prevent unwise conduct on the part of the laborers.

To the economists who maintain that trades unions cannot arbitrarily fix the rate of wages, we must reply that this is not their purpose. All they seek to do is to obtain the wages justified by the general state of the market, and not the rate determined by certain accidental circumstances, such as the relative poverty of the laborers and the dire want of food that sometimes obliges them to accept the employer's terms.

Yet the right to meet together and to form associations for the defence of their interests and the improvement of their condition has but recently been acquired by the laboring classes of most countries. Ordinarily, the first step accomplished by the working classes was the acquisition of the so-called *right of coalition*, *i.e.* the right to act as a unit in demanding certain terms of employment, and in case of refusal, to abandon work and to "strike." This privilege was granted in England in 1824, and in France by the Law of 1864.[1] In Russia it has until quite recently been a misdemeanor for employees to strike. It appears that strikes, in themselves, have never been illegal in the United States.

But the right merely to act jointly is not enough; for in order to be effective, the claims of laborers must be backed not only by an occasional and temporary agreement among themselves, but by permanent understandings through the medium of labor organizations. The right to organize permanent associations of this nature was not granted by law in England until 1871, and in France until 1884.

Associations of laborers belonging to the same trade are not new institutions, but date from the Middle Ages. Their prototype, however, was not the mediæval guild, properly speaking,—for the guild was generally composed only of masters, and therefore resembled the modern employers' syndicate, — but the journeymen's corporation or guild, composed of workers who were not allowed to enter the guild proper. Associations of this sort, old as they are, have only recently begun to play an important part in the economic field. In England and in Austria, labor organizations have acquired great prominence because of their admirable organization. In English-speaking countries they are commonly called *trades unions.*

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[1] A "lockout" may be defined as a strike on the part of employers, when they determine to close their establishments until the employees accept such terms as the employers choose to offer.

England is the classic country of trades unions. At the beginning of the year 1902, there were 1236 trades unions in England, having 1,922,780 members. Of this number, 120,078 were women, 90 per cent of whom were employed in the textile industries. Only 4 per cent of the laboring women are organized, but more than one-fourth of the male workers belong to trades unions. These organized male laborers are very unequally distributed among the various trades; there are few of them in the food-producing occupations and among tailors, whereas the Amalgamated Society of Engineers, for instance, has over 90,000 members. Many of the English trades unions are wealthy organizations, grouped into powerful federations, directed by prudent and distinguished men, some of whom have been elected to the House of Commons. Their great Annual Congresses are events of much public importance. Until recently, they have not lent their influence to the propagation of socialistic ideas, but have devoted themselves to the more practical task of increasing wages or reducing the hours of labor without asking for government intervention. They have been moderate in the use of strikes as a method of industrial conflict, preferring to employ the greater part of their funds to provide assistance for unemployed, sick, or disabled members, or for those who are too old to work.[1] In fact, the conservative spirit of the older unions, composed chiefly of skilled workmen, has exposed them to the charge of attempting to build up an aristocracy of laborers and of having no sympathy for unskilled and unorganized labor.

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[1] In 1901, one hundred of the most prominent English trades unions had an income of about $10,000,000. Their expenditures during the same year were divided as follows: payments to sick and injured members, $1,700,000;

Since the famous London dock-laborers' strike in 1889, the unionist movement has extended to the ranks of unskilled laborers, who have formed numerous organizations, with limited resources and showing a pronounced tendency toward socialism and active participation in politics. This tendency, sometimes called "the new unionism," has brought the trades unions into closer sympathy with government intervention and collectivism,—especially the nationalization of land and mines.

In respect to the strength of labor organizations, the United States, to say the least, now begins to rival Great Britain. The beginnings of American trade-unionism are unknown, but there appears to have been an association of journeymen shoemakers in Philadelphia as early as 1792. Most of the organizations founded before the Civil War were purely local. The National Labor Union, organized in 1866, as well as several subsequent attempts to establish a general association of laborers, enjoyed but a brief and precarious existence.

The first general organization to acquire national prominence was the Knights of Labor, started in 1869. This order aimed to unite all workingmen in one great organization, with the key-thought that "an injury to one is the concern of all." By 1886 the organization had a membership of over 500,000. Its growth, in fact, was too rapid. The order, moreover, showed too little respect for the autonomy of each craft, and its leaders undertook to exercise dictatorial powers. Hence a violent reaction set in, and some of the trades unions organized a Federation of Trade and Labor

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to members without employment, $1,600,000; for carrying on strikes, $1,000,000; old age pensions, $1,000,000; funeral expenses of deceased members, $500,000. The average dues per member, in these unions, was about $8 per annum.

Unions, which later became the American Federation of Labor. This Federation, now the greatest labor organization in the country, recognizes the autonomy of the separate crafts, but federates them for purposes of strength. In 1894 the socialists endeavored to commit the Federation to a platform of complete socialism, but their efforts met with no permanent or important success. In the latter part of 1902, the Federation included nearly 1800 local and city trades unions, with an aggregate membership of 2,000,000; it publishes over 200 weekly and monthly papers devoted to the cause of labor, and officially declares its object to be to render employment and the means of subsistence less precarious by securing to the workers an equitable share of the fruits of their labor.

Several national unions, however, are not affiliated with the American Federation of Labor; their total membership is probably about 300,000. The Knights of Labor now number not more than 40,000. In addition to these national labor organizations, there are international associations of workingmen, and also trades unions that are confined to particular localities. The typical *local union* includes only members who live and work in one town, and its business is done by vote of all the members, meeting in one place. The national and international unions are made up of these local unions, which possess more or less complete autonomy and which join in one way or another in the government of the general body. A very important part is played by the local federations or trades councils, which bind together the local unions of particular cities.

The objects of trades unions in the United States are essentially the same as in England. They pay benefits, as a rule, in case of the death, sickness, or permanent disability of a member. A few unions, in whose trades it is customary for the workmen to furnish their own tools, insure the tools of the members against fire and accident. The out-of-work benefit, however, has not attained as much importance in America as in Great Britain.

The primary object of trades-union policy in the United States may perhaps be said to be the establishment of a standard rate of wages; that is to say, a fair uniform compensation to all members for the same performance, and not necessarily a uniform wage for each member by the day or by the week. Like trades unionists abroad, American unionists emphasize the importance of a shorter work-day and discourage overtime work and work on Sundays and holidays.

Every labor organization aims to be able to set a definite choice before the non-union men of its trade: they may join the union or they may leave the occupation. "The union is conceived as a means of bettering the condition of its members by united action. If this action is to be thoroughly effective, it must be taken by or on behalf of all the members of the craft. It is by the establishment of an absolute monopoly of labor power of a particular kind that the union hopes to raise the market price of that sort of labor power and to ameliorate the conditions under which it is sold and used. The trades unionist conceives the members of his craft as a corporate body whose interests it is the duty of every member to further. More than that, he conceives the whole wage-earning class as a larger unity, to the welfare of which every member of it is in duty bound to contribute. The workingman who refuses to contribute to the support of the union of his craft, who stands aloof and gives aid and comfort to the enemy, is regarded as a traitor to his own trade and to the working class as a whole. His mind is to be enlightened, if it can be, by argument and persuasion; but if he refuses to be persuaded, any legal means of bringing him to conform his action to right rules are legitimate and praiseworthy."[1]

In France, the trades unions (*syndicats ouvriers*) have 600,000 members; in some industries, — type-setting, engineering, and mining, — they have formed strong, well-organized federations. In Germany, the *Gewerkschaften* (as the trades unions are called) are as a rule more socialistic than in France or England.

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[1] Report of the Industrial Commission, Vol. XVII, p. 1. A defence and account of the American Federation of Labor may be found in H. N. Casson, "Organized Self-Help" (1901).

Especially when grouped into large organizations, trades unions have undoubtedly increased the power of the working classes. They have contributed to the education of laborers and promoted culture and social intercourse among their members. They have helped to secure the enactment of laws providing for safer, more hygienic conditions of employment, shorter hours of labor, and the regular cash payment of wages. They have secured better conditions in the labor contract, in several ways: by helping laborers to move to less crowded labor markets when the supply in any locality becomes excessive;[1] by limiting the number of apprentices admitted into each trade; by collective bargaining with employers; and by threatening or actually resorting to strikes and boycotts.

§ 1. STRIKES

A *strike* is a concerted refusal to work. Strikes are often regarded as the sole purpose and the essential function of trades unions. But, as we have already indicated, this is a mistake. A well-organized union may gain advantages without striking, just as a general may be victorious without fighting battles. In fact, the best organized and most powerful unions are those that declare the fewest strikes. Nevertheless, the strike is the last resort of the trades union.

In most civilized countries the *right to strike* is not controverted.[2] For if we grant that labor is a commodity like any other article, every person has a right to refuse to sell his commodity if the purchaser will not pay the price that is asked for it. But the *effectiveness* and wisdom of strikes is still a matter of discussion.

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[1] Quite a long while ago, M. de Molinari suggested the creation of *labor exchanges*, resembling stock exchanges, where employers and employees could find each other, — where, in other words, the employer could apply for labor and the laborer for employment, thus giving labor a mobility almost equal to that of capital.

[2] There are weighty reasons, however, for denying that laborers employed by the government, or those engaged in occupations of eminent public importance (such as providing illumination, or water, or railroad transporta-

Strikes, being appeals to force, possess all the disadvantages of war. They entail an enormous waste of productive energy.[1] They cause great suffering, and leave, in the heart of the vanquished party, (whether workers or employers) a feeling of resentment which prepares the way for future conflicts. But it cannot be denied that this method, radical as it is, has helped to raise wages, and especially to reduce the hours of labor. We have already pointed out what changes have taken place in these two respects. The efficacy of strikes must not be judged from the number that are recorded statistically as successful. A single successful strike may result in an increase of wages in a great many industries. It is, moreover, not so much strikes themselves which raise wages, as the constant fear of strikes.

Those who deny the efficacy of strikes as a means of increasing wages point out that wages have increased quite as rapidly, or even more rapidly, in those trades and occupations in which strikes never occur and in which there are scarcely any labor organizations; for instance, among farm laborers and domestic servants. But why, let us ask, is this true? Because these classes of laborers have profited indirectly by the increase of wages in the organized industries. Wages

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tion) have the right to strike. One may, moreover, very properly raise the question whether every person who carries on a trade or who performs work of any kind for others does not also perform a "social function" or "public function" in the true sense of the term, and whether, therefore, to strike is not a violation of the principle of social solidarity? The right to strike presupposes, in fact, a state of conflict among men, and would manifestly be inadmissible under an ethically superior social system.

[1] The 22,793 strikes which have taken place in the United States in the years 1881 to 1900 cost the employees a loss in wages of nearly $260,000,000 and an expenditure of over $16,000,000 by labor organizations. The losses of employers amounted to nearly $123,000,000. (Sixteenth Annual Report of the Commissioner of Labor, 1901, p. 24.)

have increased on the farms simply because laborers have migrated from the country to the cities, in quest of better pay. Again, the wages of domestic servants naturally tend to increase whenever the wages of industrial employees increase. In the last analysis it may be said that trades unions are becoming the regulators of the labor market, whereas heretofore the great army of unemployed laborers weighed on the market and depressed the price of labor. From both the economic and the ethical point of view, a great step forward has thus been taken.

§ 2. ARBITRATION AND CONCILIATION

Political conflicts between nations, which formerly gave rise to incessant warfare, are now more frequently settled by arbitration. Similarly, conflicts between labor and capital tend to be adjusted by peaceful agreements rather than by strikes, which are essentially appeals to force.

The most characteristic method for the peaceful settlement of labor disputes is also called *arbitration*. But industrial arbitration, in order to accomplish the best results, presupposes the existence of strong labor organizations sufficiently enlightened, and above all sufficiently disciplined, to accept the judgment of arbitrators even when it is not in favor of the laborers. This is not usually the case. In some of the great industries of England, however, boards of conciliation and arbitration, elected by employers and employees, perform their work successfully.

In the United States the principle of conciliation and arbitration has steadily gained ground. In half the states of the Union there are now state boards of arbitration for the adjustment of grievances and disputes between employers and employees by conciliation or arbitration. In several of the states these boards possess some of the attributes of ordinary law courts, being empowered to compel the attendance of witnesses and the submission of relevant testimony.[1]

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[1] See Vol. V, Report of the U. S. Industrial Commission, p. 148.

The formation of a committee representing both labor and capital, for the purpose of considering fairly and dispassionately the questions at issue, is an eminently rational and civilized method of settling industrial disputes. Many labor controversies are due to misunderstanding and distrust. In such cases all that is necessary is a friendly meeting of the representatives of employers and employees. This method, known as *conciliation*, has secured the amicable settlement of many questions that might have led to strikes and lockouts.

When, in the absence of efforts at conciliation, or because of the failure of conciliatory boards to adjust the matters of dispute, labor disagreements have led to an open rupture, *arbitration*, *i.e.* an appeal to the decision of an impartial third party, has often proved successful. Sometimes the two parties to a dispute voluntarily agree, in advance, to abide by the decisions of the board of arbitrators. One of the most striking recent examples of voluntary arbitration was the settlement of the coal strike of 1902 by a board of arbitrators chosen by President Roosevelt. Arbitration, however, is not always voluntary. Sometimes the participants in industrial conflicts involving a certain number of persons are compelled by law to submit their grievances to a board of arbitrators having the power to enforce obedience to its decisions. The most celebrated example of this so-called *compulsory arbitration* is furnished by New Zealand. In that country the board of arbitration is not, strictly speaking, merely a board, but really a court of law. Unlike ordinary civil tribunals, it may, moreover, of its own initiative, try and settle all labor conflicts. This system, which has been in effect since 1894, appears to work well; it has preserved industrial peace. But we must remember that New Zealand is a small country, in which trades unions have long been powerfully organized, and in which they include the whole laboring population. Wherever labor organizations are still in an embryonic state there is practically no way to make arbitration compulsory, or, above all, to make it acceptable to all parties concerned.

Another device for securing industrial peace is the establishment of *sliding scales*. As the result of an agreement between employers and employees, valid for a stated period, the rate of wages is determined arithmetically according to the selling-price of the product; when prices rise, wages rise, and *vice versa*. But this ingenious device is applicable only in the case of simple products, such as coal and cast-iron; and even in these cases it involves troublesome complications.[1]

VII. Workingmen's Insurance

For a workman to get fair wages is certainly desirable; but it is not enough, inasmuch as there ought to be some guarantee that his income will not be insufficient at critical times. Every laborer is constantly exposed to five possible misfortunes which are at any time liable to render him either temporarily or permanently unable to work, and hence unable to earn the means of subsistence for himself and his family. Three of them he shares with the rest of mankind: *illness*, *old age*, and *death*. Two of them are peculiar to his economic position: *accidents* and *loss of employment*.

Can the laborers themselves, by means of saving and organized effort, insure themselves sufficiently against these threatened dangers, or should they look to the state for help? It is unlikely that saving, especially among the poorer classes, will be a sufficient insurance against so many possible misfortunes.

In fact, the laboring classes themselves have succeeded in providing against only one of these risks, — illness — and their success in this effort has been incomplete. There are in most countries a large number of so-called *mutual benefit societies*, whose object is to pay a regular allowance to members whom illness has rendered for a time incapable of working. These societies are supported by small dues and usually meet the doctors' and druggists' bills of sick members.

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[1] Sometimes agreements are made between employers' organizations, on the one hand, and trades unions on the other, fixing wages at a mutually acceptable rate for a certain period. These agreements differ from the sliding scale, for here the laborer does not play a merely passive part.

As regards the four other risks, little or nothing has been done by the laborers themselves. The annual premium that must be paid to provide an annuity for workers who have passed the age of sixty or seventy years is still, in spite of numerous ingenious financial schemes, much too high for the modest means of the average laborer. Many benefit societies, to be sure, promise to pay a pension to all their members who reach a certain advanced age; but this pension is usually very small, and in many cases it is doubtful whether these associations are in a position ever to fulfil their promises.

As regards death and accidents, there are of course innumerable insurance companies founded especially to provide against these contingencies; but their rates are high, and they make no effort to reach the poorer laboring classes. Outside of the United States, comparatively few members of the middle classes insure themselves against death or accidents, and we can scarcely expect the laboring classes to manifest greater foresight than their wealthier neighbors.

As regards insurance against loss of employment, the English trades unions have accomplished excellent results, because of their strong organization and because of the high dues which their members are obliged to pay. But even in England, the laborers themselves can cope with this difficulty only when the loss of work is confined to certain localities or to certain groups of laborers. Probably the strongest and richest trades union in the world would be ruined in a few weeks if *all* its members should find it impossible to secure employment and should depend on the funds of the union for support.

If, therefore, the laborers themselves are incapable of making sufficient provision for meeting the dangers to which they are exposed, must they not turn to others for help? If so, to whom shall they turn?

What, in this respect, are the duties of the employer? Especially as regards the danger of accidents and of reaching too advanced an age for continued labor, may it not be urged that the employer is quite as responsible for his laborers as for the machines or implements that are worn out in his service? When a machine breaks and becomes temporarily or permanently unfit for further use, the loss falls entirely on the employer. Similarly, some employers, especially large stock companies, have voluntarily founded insurance funds to provide for the financial relief of disabled members or of those who have reached an advanced age while in their employ. Sometimes these funds are furnished entirely by the employer, sometimes they are provided by both employers and employees, the latter being required to contribute a certain part of their wages. Many American railroad companies, for instance, have founded so-called "relief departments" for the purpose of paying regular allowances to sick or disabled employees, or to such employees as have reached the age of 60 or 65 years while in the company's service. Arrangements of this sort, however, are the exception rather than the rule.

What, we may next ask, are the duties of the government in this respect? The principle of social solidarity, which we have already explained, requires that society as a whole, which reaps the advantages of productive activity, should also bear a part of the burden which falls upon the laboring classes, and should participate in the risks which productive activity involves.

This is what Germany has done. By the enactment of three celebrated laws, — that of 1883 concerning illness, that of 1886 concerning accidents, and that of 1889 concerning old age and incapacity for work, — the expense of providing against these three contingencies must be borne partly by the employers, partly by the employees, and partly by the government.

To insure laborers against illness, the employers in Germany are required to pay one-third and the laborers two-thirds of the regular premiums.

For the payment of allowances to laborers who have been injured, the German law requires the employers to bear the total expense. The theory underlying this requirement is that of so-called "industrial risks," according to which accidents to employers constitute one of the normal, regular risks of any trade or industry; the resulting costs should therefore form a part of the general expenses of any business enterprise.[1]

To provide for the payment of pensions to superannuated laborers, half the premium is paid by the employers and half by the laborers. But as this variety of insurance is exceptionally costly, the government undertakes to bear part of the burden by agreeing to pay fifty marks ($12) annually for every pensioned laborer.

This system of workingmen's insurance, which applies to eighteen million laborers, is the greatest experiment in state socialism that has yet been tried. There are, however, two risks against which the German system makes no provision: unemployment (*i.e.* inability to "find work") and death.

A very important question connected with the insurance of laborers is that of responsibility, and particularly of *legal liability*, for each of the kinds of misfortunes which may befall the laborer. In the United States it is generally assumed, under the common-law rule, that the employee engages in the services of an employer with a full knowledge of all the ordinary risks and dangers that are involved, and that therefore he cannot charge his master for an injury which he suffers as a result. Hence the employer is not responsible in damages to an employee for an injury incurred through the negligence of another employee, technically known as a "fellow-servant." According to this so-called *fellow-servant doctrine*, a brakeman on a railroad line, for instance, who has been injured through the carelessness of a switchman, cannot recover damages from his employer; nor can a factory worker who has lost an arm because of the negligence of an engineer in the same factory obtain redress from the proprietor or owners, under the common-law rule. The manifest injustice of this rule led to a movement aiming, by means of statutory provisions, either to limit it or to do away with it entirely. In the latter event the employer is made liable in all cases of accident, whether caused by fellow-servants or not, unless primarily caused by contributory negligence of the person injured. In some states, the law defines who are fellow-servants by setting them off into classes, or simply declares that the name shall apply only to those who are in the same grade of employment. It should be remarked, however, that there is no part of the labor law where statutes are so often tinkered, and, consequently, no subject in which a clear, consistent code, adopted by all the states, is more desirable.[1]

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[1] This theory of *industrial risks* also possesses the advantage of avoiding lengthy discussions and lawsuits in which each party endeavors to shift the burden of responsibility. In order to preclude the possibility of debate with regard to the amount of indemnity for accidents, the German law provides that so much shall be paid for the loss of an arm, so much for a leg, so much for an eye, etc.

Still another important question is whether laborers' insurance shall be *obligatory* or *optional:* Shall they be obliged to participate, or shall the matter be left to their own choice? The German system is obligatory; employers and employees are by law compelled to pay the prescribed amounts into treasuries established for this purpose in the various groups of industries and in the several regions of the empire.[2] In order to prevent any failure on the part of employees to make the prescribed payments, the employer is required to pay the premiums and to deduct the laborer's share from the latter's wages.

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[1] In many states these statutes concerning employers' liability apply only in the case of railways. Several states have, by statute, made employers liable for injury to employees caused by defects and condition of appliances, machinery, etc.

[2] These treasuries sometimes accumulate very large sums of money, which they are required to invest. Frequently the funds are used to build or manage sanatoriums; as the sick laborers are sometimes kept in these institutions, their care involves comparatively little expense.

In most countries, workingmen's insurance is entirely optional, the law attempting nothing more than to fix the liability of employers and employees, who may take whatever precautionary measures they choose.

In France, according to the Civil Code, the employer was strictly responsible for accidents to employees only when the latter could bring proof that the former was to blame. This provision made the employer's liability almost illusory, for accident statistics in Germany show that of every 100 accidents to laborers, the laborer is to blame for 26, the employer for 20, both of them for 4, and 50 are due to purely accidental circumstances. The French law of 1898, however, which resembles the German law, makes employers responsible for all accidents. With regard to illness and old age, French law has left the laborers to take care of themselves, except for a few favors granted to mutual societies which pay benefits to members in cases of illness and old age. It can scarcely be held that old age should be regarded as an "industrial risk"; but it may be maintained that the laborer's wages should include, in addition to the amount necessary for living, sufficient surplus to provide for the years in which he is no longer able to work.

Which of these two systems is preferable? The plan of optional insurance, evidently, is not only in better harmony with the principles of liberalism, but less vexatious and less burdensome. The obligatory system involves innumerable devices for collecting dues, keeping accounts, the issue of receipts, etc. Not all people are disposed to look favorably upon the vast amount of "red tape" connected with the German system. But, on the other hand, it is to be feared, — in view of the widespread improvidence of mankind, and especially that of the poorer classes, —

that optional insurance will cover only a small part of the population.

Governments may adopt a mixed system, retaining the general principle of optional insurance, but encouraging its extension by furnishing financial assistance. This has been done in Belgium. The government says to the laborer, virtually: "Help yourself and I will help you." This arrangement is a good one, but under it there will always be a host of incorrigible improvidents; it should consequently be supplemented by some legal provision for the relief of laborers who have reached an advanced age incapacitating them for work.

We have seen that the German system provides insurance against three risks only, but not against death and loss of employment. It was originally the intention of the German government, however, to provide also for laborers' insurance against death,—a calamity which often plunges the workingman's family into extreme want. But with regard to insurance against loss of employment, or the inability to "find work," the difficulties are really so great as to be insurmountable. Nothing is harder than to find out whether the laborer who claims to be unable to find employment is truthful and sincere. Unlike the other misfortunes to which the laborer is exposed, the inability to find work cannot be established conclusively. Unlike the others, this misfortune is not usually confined to individual, isolated cases, but generally involves large groups of laborers simultaneously,—all the employees of an establishment, or an entire trade, or even the whole industry of a nation.[1]

For a long while it was believed that the state could come to the assistance of unemployed laborers by recognizing the so-called *right to work*. This "right," which gave rise to considerable discussion during the French Revolution of 1848, is now somewhat discredited. It is now understood that the state cannot undertake to provide every laborer with the kind of work he can perform, nor guarantee that his labor shall be productive, unless the government becomes the entrepreneur of all businesses and thus accepts collectivism. It is generally agreed at the present time that the so-called right to work cannot really be anything more or less than a form of public charity.

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[1] The local governments of several Swiss and German towns have founded societies for insurance against loss of work, the membership of which is voluntary; and the Swiss town St. Gall has a society of this kind with *obligatory* membership.

These experiments, however, have not been satisfactory, but other Swiss towns are about to try new experiments along this line.

VIII. The Future of the Wage System

In spite of the influences which tend naturally to increase wages, and in spite of the ever more active intervention of legislative bodies with a view to improving the condition of wage-earners, the wage system will always have certain serious defects that cannot be overcome, because they are inherent in the system itself.

Without doubt, the wage system offers some advantages that political economists have been careful to point out.[1] The following are the two principal advantages that are attributed to it: —

(*a*) To the entrepreneur it secures not only the ownership of the product, but also the entire control and responsibility of the business enterprise. (*b*) To the laborer it guarantees a certain, fixed, and immediate income, an income that does not depend on the success or failure of the business enterprise in which he is employed.

These two advantages are so pronounced that the wage-workers themselves, as well as the entrepreneurs, generally prefer this system to all others, — even to the apparently more equitable plan of quasi-partnership, by which laborers and employers would share the profits and losses.

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[1] It must not be supposed, however, that this method of remuneration was devised and adopted because of these advantages. The wage system is simply the result of historical necessity, — the outcome of social forces. Yet M. de Molinari appears to regard the wage system as a wonderful discovery, like that of vaccination or that of the locomotive, when he declares, "'The *wage system was invented* because it is impossible for laborers to await the result of productive activity, and to incur the risks which it involves."

Such a system of partnership presupposes an equality of economic position and a community of interests and purposes, which do not really exist. Capitalists and proletarians — those that possess much and those that possess little or nothing — are by no means on a footing of equality. The former aim to amass wealth; the latter try to earn a living. The former look far ahead; the latter live from day to day. The former act on the principle, "Nothing risk, nothing gain"; the latter have nothing to lose, and therefore nothing to risk. Later, when we discuss profit-sharing, we shall see in what measure these difficulties can be removed.

The following disadvantages of the wage system far outweigh, in our opinion, its advantages: —

(1) This method of remuneration treats labor — that is to say the laborer, for it is impossible to separate the one from the other — as a commodity, and regards it as subject, in the market, to all the laws that determine the value of commodities. Now these laws are *natural* laws, and have nothing to do with moral considerations. Hence it has been said — Chateaubriand was the first to say it — that the wage system is a survival of the slave system and the slave trade, which also treated men as objects to be bought and sold.

It may be asked whether the same is not true of landowners and capitalists. Is not their income, whether it be rent or interest, also determined by the law of supply and demand? To be sure. But landowners and capitalists put only their possessions on the market, not *themselves*. Now the man who sells his labor or hires *himself* for money is generally at a great disadvantage when compared with the man who exchanges a *commodity* for money.[1]

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[1] Ruskin frequently points out that the remuneration of professional men — lawyers, physicians, professors, artists, etc. — is not determined by the

(2) By the terms of the wage contract, the laborer *gives up all claim to the product of his labor, in consideration of a fixed sum* which the entrepreneur agrees to pay him per week or per month.[1]

As a general rule, the great majority of laborers are deprived of all claim to the product of their toil. This is an unnatural and unjust state of affairs. It is, moreover, dangerous in its effects on the intensity and quality of labor, for the worker has no incentive to do his best. The only motives that can lead him to work well are *duty* and *fear*, — not the fear of physical punishment, which prompted the slave to work, but the fear of being discharged and thus losing the means of living. Of these two motives, the first is felt with sufficient keenness only by exceptional minds; it is, unfortunately, constantly being weakened by the increasing antagonism of employers and employees. The second motive,

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law of demand and supply, but by social custom. He proposes that manual labor be remunerated in the same manner as intellectual labor.

[1] The nature of the wage contract might be different if we could determine *a priori* the share due to each participant in the productive process. The problem to be solved is this: Given two factors, one of which is manual labor alone, and the other capital alone, both of which coöperate in a productive enterprise. What part of the product ought, theoretically, to belong to each?

Robinson Crusoe, for example, provides a canoe and a fishing-net, while Friday furnishes his labor. As the result of the day's work, Friday brings home ten baskets of fish. How many ought Crusoe (capital) to receive, and how many ought to be given to Friday (labor)?

This problem is impossible to solve — as impossible as that proposed by John Stuart Mill when he asks, ironically, which of the two blades of a scissors does the more cutting. Yet a great many economists have grappled with it. The German economist, Von Thuenen, in a very remarkable book on "Natural Wages," attempted to prove, with the aid of mathematics, that the wages of labor should be the *geometrical mean* of two factors, the first of which is the minimum cost of supporting the laborer, and the second the value of his product. Let the first factor be called a, and the second p, and we obtain the formula: $wages = \sqrt{ap}$. This so-called formula of natural wages, however, indicates what wages the laborer *ought* to receive, and is not supposed to explain how wages are actually determined. Wages are in reality determined, in Thuenen's opinion, by the productivity of the least productive laborer. (See page 506 ff.)

of the effects of which the slave system offered an excellent illustration, has never succeeded in getting men to do more than the least possible amount of work.[1]

To overcome this disadvantage in a certain measure, there is now a tendency to adopt the system of *piece wages*, by which the laborer is not paid a fixed sum per hour or day or week, but according to the quantity of goods he produces. Laborers are generally opposed to this method of remuneration, which they regard as a device for getting more work out of them without ultimately increasing their wages.[2]

Laborers have often advocated the system under which a group of employees agree to perform a certain task or "job" at a price fixed upon with their employer. The employees then do the work and share the proceeds according to rules which they have adopted themselves. They constitute a sort of small coöperative association in the midst of the factory or industrial plant. (Consult the section on coöperative societies for production.)

(3) This system, finally, is sure to create strife between

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[1] In manufacturing, the productive inferiority of wage-paid labor is less manifest than in other branches, because labor in manufactories can be subjected to close supervision, its results are directly measurable, and a certain amount of work must be done in a given time.

The inferiority of wage-paid labor is especially noticeable in agriculture, and due to the following circumstances: (1) Supervision is much more difficult than in a workshop, and increases in difficulty with the size of the farm; (2) the results of a farmer's labor generally cannot be found out until a long time afterward, and even then not exactly; (3) the plan of requiring a certain amount of work in a given time cannot ordinarily be used, because in farming the carefulness and quality of the work is more important than its rapidity.

[2] Piece wages have often been introduced by employers as a means of getting employees to do more work, and then the rate of wages per piece has been reduced; so that the ultimate result is the employer's gain and the employee's loss. The actual practice of labor organizations, however, would hardly support the widely prevalent belief that the policy of trades unions in general is antagonistic to piece-work wages. (See "Report of the Industrial Commission," Vol. XVII, page 54.) Sometimes piece wages and time wages are combined by guaranteeing a minimum time wage and offering a premium for exceeding a certain amount of work per hour or day.

master and workman, because their interests are antagonistic when the product is divided. It is natural, moreover, for the laborer to regard it as his interest to furnish the least labor possible in exchange for the wages he receives; while the employer, on the other hand, tries to get the most labor in exchange for least wages possible. Hence the series of conflicts which, in the form of strikes, for several years have occupied the public attention.

Each great school of economists has its own particular plan for the reform or abolition of the wage system.

The *liberal* school, as we have already said, regards wages as the most perfect conceivable system of remuneration, because wages are the result of "free contract." This school therefore accepts the wage system as a permanently established institution. The only improvement which it advocates is to make the labor contract still more free. This may be accomplished either through the exercise of the right of laborers to organize, — a right which liberal economists have always admitted, — or by means of such institutions as labor exchanges (page 535, note 1), which enable workers to find the most remunerative employment, and make traffic in labor more nearly like traffic in merchandise.

The *collectivists* demand the abolition of the wage system, which they regard as the latest form of slavery. In their party programmes they insist that the laborer has "a right to the full product of his toil." But we believe that, far from abolishing the wage system, collectivism would only perpetuate it and make it universal. This, in fact, is another objection against collectivism, which should be added to those already urged. (See pages 472 ff.) We already know that collectivists propose to make the nation the only entrepreneur, and to suppress all individual enterprise. Consequently, no one would work *for himself*, but each citizen would be employed by the nation, and receive a share of the productive proceeds equivalent to the amount of labor he had furnished. If this is not the wage system, one must admit that it resembles the wage system very closely indeed. Collectivism, as a matter of fact, would not suppress the class of wage-workers (for under that social system we should all be wage-workers); but it would do away with the class of employers, because the nation would then be the *only* employer.

The *Catholic* school accepts the wage system as a normal and permanent condition. This is logical, because the continuance of the two classes of employers and employees is a fundamental part of the programme of Catholic reformers. But they protest against the treatment of labor as a commodity, and do not desire to have wages determined by the law of supply and demand. They maintain that the laborer has a right to *fair* wages, that is to say, sufficient wages to enable him and his family to live under conditions that are decent and worthy of a creature of God, entitled above all to his daily bread, but who "does not live by bread alone."[1]

But who shall determine what is the proper and sufficient standard of living in a given community? The employer? Even if the employer is an exceptionally enlightened and unselfish man, there will thus be no effectual guarantee that wages are fair and sufficient. Hence Catholic reformers usually accept the idea that the "fair wage" must be fixed by *law*. But from the purely theoretical point of view which concerns us here, a standard of wages established by law must be regarded as unjust, because it necessarily implies that at a fixed figure wages shall be regarded as fair.[1] Why, moreover, should there not also be a "fair" income for the landowner and the capitalist; that is to say, an income fixed at a certain level? There is no reason whatever for fixing the share of the laborer, and at the same time regarding the share of the other participants as unlimited. Must the laborer be satisfied with only a modest competence? He has more right, or at least as much right as the others, to participate in all the fruits of a progressive civilization, even though they be matters of luxury.

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[1] This is the same as the popular idea that the workman should receive a "living wage," *i.e.* wages sufficient to enable him to meet fairly and fully the physical, mental, and moral requirements and conditions of life, individual and social. This idea, however, is singularly vague, for whereas the London County Council estimated the "living wage" at 24 shillings a week ($6), the socialist, Keir Hardie, fixes it at £3 a week ($15).

Concerning the saying that "a man should have a fair day's wages for a fair day's work," Professor Jevons remarks: "Nothing, at first sight, can seem more reasonable and just; but when you examine its meaning, you soon find that there is no real meaning at all. It amounts merely to saying, that *a man ought to have what he ought to have.* There is no way of deciding what is a fair day's wages. . . . If the saying means that all should receive the *same* fair wages, then all the different characters and powers of men would first have to be made the same, and exactly equalized. . . . Wages vary according to the laws of supply and demand, and as long as workmen differ in skill, and strength, and the kind of goods they can produce, there must be differences of demand for their products. Accordingly there is no more a fair rate of wages than there is a fair price of cotton or iron." ("Primer of Political Economy," page 60.)

The *coöperative* school, lastly, regards the wage system as a relatively inferior method of remuneration, destined to be gradually supplanted by association or co-partnership. Cooperators expect that some day the laborers will be united in coöperative societies owning the instruments of production; that the laborers will receive the entire product of their work; and that thus they will cease to be employees and will become their own masters. Meanwhile, as long as the wage system and its necessary complement, the entrepreneur system, continue to be necessary, this school endeavors to graft upon the wage system the arrangement known as *profit-sharing*. Under this arrangement, proposed as a partial corrective of the defects of the wage system, the laborer receives, in addition to his wages (which continue to be determined by the law of demand and supply), a share in the profits of the business. We shall examine this arrangement more closely under the head of Profits.

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[1] Some European municipalities have begun to establish a *minimum wage* for laborers employed by contractors engaged in work for the municipality. But it is difficult to conceive the possibility of a legal minimum wage for purely private enterprises, because employers are always at liberty not to employ laborers.

CHAPTER II — INTEREST

I. The Ownership of Capital

THE existence of a particular kind of income that goes to the capitalist evidently presupposes that capital belongs to some one, and consequently gives rise first of all to the question whether private property in capital should be regarded as legitimate. The classical economists have answered this question decidedly in the affirmative. In the case of land, on the contrary, we shall see that important reserves are made, and its private ownership is usually defended only on grounds of public utility. But the embarrassing circumstance that land is not a product of labor is not present in the case of capital. There is no doubt that all capital, no matter what definition of it we may give, and no matter what form it may take, is a product of labor, and, as such, may properly become an object of private property.

The classical economists maintain that the right of private property in capital is even less subject to attack than the ownership of other products, because it is based on a twofold claim; it is not only due to the labor of production, but also to that of saving, which in the creation of capital is quite as indispensable as production. The right of the farmer to the wheat that he has harvested is sacred; his right to the same wheat when it has been withdrawn from purposes of consumption and kept in reserve for sowing, — that is to say, when it is transformed into capital, — ought to be *doubly* sacred.

This second argument seems to us of doubtful validity. See what we have said concerning saving or abstinence.

page 129.) It is at all events superfluous; the first alone is sufficient.

The legitimacy of property in capital has nevertheless been vigorously attacked by socialists. The principal purpose of Karl Marx's[1] celebrated book on "Capital" is to prove that private property in capital is both the result of past spoliation and a means of continuing this spoliation upon a larger and larger scale. Collectivists consider private property in capital as legitimate only when it exists in the modest and primitive forms usually referred to by political economists, *e.g.* Robinson Crusoe's canoe, the plane made by Bastiat's carpenter, the coins put away in an old stocking or deposited in the savings-bank by a peasant. But, they maintain, this is not true capital; this is not the capital that procures wealth and power without exertion. True capital is never the product of the owner's labor, or saved from the proceeds of the owner's labor. It is, on the contrary, *saved from the product of the labor of others*, these others being hired wage-workers. This saving, moreover, can be increased only by using it to employ the labor of still more wage-workers in order to produce additional profits. All great fortunes have been created by this process of cumulative spoliation.[2]

The only conclusion to be drawn from this argument is that there are two kinds, two classes, of capital: "small" capital, — the private ownership of which is legitimate because it is the result of the owner's labor; and "large" capital, — private property in which it is illegitimate because it involves the appropriation of the product of others' labor. Now, as all "large" capital evidently must have been "small" at one time, it would follow that the private ownership of capital is legitimate at the outset, continues to be so up to a certain point in its growth difficult to determine, and then becomes an abuse.

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[1] Rodbertus preceded Marx in many points, as his most important works were written half a century ago. Almost totally ignored for a long time, Rodbertus has recently acquired considerable celebrity as a forerunner of the great collectivist doctrines. An excellent account of his work may be found in W. H. Dawson, "Socialism and Ferdinand Lassalle," and Charles Andler, "Les Origines du Socialisme d'État en Allemagne."

[2] It is also often said that true productive capital consists of workshops and factories, machinery, utilizable natural forces, mines, and raw materials. All these things are the result of the labor of many persons, of inventions, trials, and experiments, carried on during many centuries by millions of men. No one would pretend to be the owner of the steam-engine, not even James Watt,

We object to the assertion that capital, by its very nature, can be increased only by plundering the workingman. We believe that this is a perversion of its nature (although it doubtless does take place frequently), and that we can and should try to prevent it. At all events, we are not called upon to justify the private ownership of vampiric capital, but of that capital which, as we have defined it, is the result of individual labor or saving. Even in the light of what is said above, this ownership is justifiable. It is, moreover, dictated by social utility. As the development of production absolutely requires a supply of accumulated wealth (see page 120), one must admit that those who accumulate wealth and thus create capital perform a function of very great social importance; and certainly the most effectual method of encouraging this accumulation of wealth for productive purposes is to attribute the property of that wealth to those who, by not consuming it, have created capital.

The problem of private property in capital once settled, there are still two others to be solved: —

Has the owner of capital the right to use it to set others to work, making a *profit* thereby? This question we shall study in the following section (pages 558 ff.) and in the chapter on Profits.

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who invented it. Why, then, are steam-engines owned by individuals who grow rich by their use?

This is a popular argument entirely devoid of sense. No capitalist pretends to own a force of nature (aside from certain reserves to be discussed under the head of land-rent), or the steam-engine *in genere*; for these would be of inestimable value. He simply claims to be the owner of the *value* of the machines in his possession, this value representing what it cost him to have them built.

Has the owner of capital the right to lend it to others on condition that they pay him *interest* for its use? This question we shall answer first.

II. The Legitimacy of Interest

Of all kinds of income the legitimacy of which has been called into question, none has been more violently contested than that which is due to the loan of capital and is called interest. For over two thousand years this problem has given rise to vehement and unceasing polemic.

The following are the principal points that have been raised during this controversy: —

(1) It was asserted, by Aristotle among others, that *money is unproductive:* one coin has never given birth to another coin.

To this, economists reply that money only *represents* capital, which is productive both by its nature and according to its definition. With money, as Bentham observed, one can buy sheep, and sheep give birth to sheep.

(2) It was asserted that in loaning money the lender undergoes *no genuine privation* and consequently has no right to an indemnity in the shape of interest.

In answer to this, economists endeavor to prove that the capitalist must deprive himself in order to create capital; some have even declared, with Senior, that abstinence is the sole source of capital.

(3) It was asserted that the *perpetuity* of interest is unnatural and unjust. At the rate of five per cent (and without reckoning compound interest) the lender will recover his entire loan in twenty years, in the guise of annual interest-payments. In forty years, he will collect the original sum twice over, and in a century, five times; nevertheless, he still retains his right to the entire reimbursement of the loan!

To this it is answered that the regular payment of interest is by no means the same thing as the gradual restitution of the loan, any more than the annual rent of a farm is part of the purchase-price of the land. Payment for the use of a thing, and the return of the thing itself or an equivalent for it, are two distinct and different operations. Interest, like the rent of a farm, is the payment for the use of wealth that is perpetual, or, at least, wealth that can be made perpetual by constant renewal. And if the use that one can make of a thing is perpetual, why should not the price paid for its use be also perpetual?[1]

(4) It was asserted that the borrower is obliged to *pay back more than he has received.*

This the economist denies. For if I give you a dinner to-day, in exchange for a dinner just like it which you will give me a hundred years hence, I am giving you much more than I receive, and you are getting decidedly the better of the bargain. Why? Because a dinner a hundred years hence is not worth as much as a dinner now. For the same reason, if I give you $100 to-day in exchange for $100 which you will give me a century later, the transaction is unfair. Even if you paid back the money a year later, your payment would not be equitable. For me, as for everybody else, the future is not as good as the present; and precisely in order to equalize matters, it is agreed that I shall now give you $100 in exchange for $105 which you will give me a year later. This difference of $5 indicates the difference of value between the present and the future, and measures the superiority of present goods over future goods.[2]

In antiquity and the Middle Ages the discussion with regard to interest was largely ethical or religious, and the participants in the controversy had in mind the payment of interest for borrowed capital. The problem they sought to solve, as we shall explain in the next section, was this: Ought the borrower to pay interest for a loan, and ought the lender to exact its payment? With the classical economists and their successors, however, the problem became primarily economic, not ethical or religious, and is better stated in these terms: How can we account for the gain which a capitalist receives for employing capital in a business enterprise? The answers to this question are by no means unanimous, and although we cannot here undertake a complete discussion of each of them, we shall give a brief statement of the several groups of answers,[1] following the classification made by Boehm-Bawerk: —

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[1] But if the borrower has used up the wealth loaned him, — and he may have borrowed it only to consume it, — will it then be renewed? Certainly not. Loans for consumption lead to the destruction of wealth and are liable to ruin the debtor, — a fact that we have already indicated (page 358).

[2] This argument, presented long ago by Turgot, constitutes the basis of Boehm-Bawerk's entire theory of interest. (Consult this author's remarkable book on "Capital and Interest," and page 561.)

1. The *productivity* theories. This name is applied to the theories based on the familiar fact that a workman provided with capital (tools, machines, etc.) can produce more products or better products than without capital. This additional product "produced by capital" constitutes interest. J. B. Say seems to have been the first author to speak of the "productive power" and the "productive services" of capital. The earlier advocates of the productivity theory do not inquire whether or why goods produced with the aid of capital are *worth more* than the cost of their production, including the cost of the capital itself or of the wear and tear of capital during the productive process. Subsequent partisans of this theory, while retaining the idea of the actual physical productivity of capital, recognize the necessity for some explanation of the *gain in value*, *i.e.* the *economic* productivity of capital.

2. The *use* theory asserts, in brief, that in capitalistic production there is a sacrifice not only of the material sub-

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[1] For a further discussion of this subject we refer the reader to the books upon which our own résumé is based: Boehm-Bawerk, "Capital and Interest," Vol. I; Macfarlane, "Value and Distribution"; the article on "Zins" in Conrad's "Handwoerterbuch der Staatswissenschaften"; Kleinwächter, "Das Einkommen und seine Vertheilung."

stance of capital, but also a sacrifice of the use of the capital during the period of production. The best and fullest statement of this theory is found in the work of the brilliant Austrian economist, Carl Menger, from which we quote as follows: —

"Production always demands a certain period of time, sometimes long, sometimes short. For the purpose of production it is necessary that a person should have productive goods at his disposal not only at any single *stage* inside that period, but that he should *retain* them at his disposal during the whole period, and unite them in the process of production. The *disposal* over quantities of capital-goods during certain periods of time therefore constitutes one of the conditions of production.

"This use of capital, or power to dispose of it, so far as it is in demand and not to be had in sufficient quantity, may thus obtain a value and become an economic commodity. When this happens, as is usually the case, then, over and above the other means of production employed in any actual productive process, there enters into the sum of value contained in the anticipated product the *disposal* (or power to dispose) of the goods requisite for production."

This theory clearly rests on the contention that there is a *use* of capital distinct and separate from that involved in the *using* of the capital itself.

3. The *abstinence* theory, first clearly stated by N. W. Senior, is based on the thought that if men postpone the present enjoyment of their wealth, and devote the resources so spared to the purposes of production, it is manifest that the resulting increase in product is very intimately connected with the saving which made possible the adoption of the more productive methods. In other words, the cost of production must include not only the labor and capital that is *used* in the process of production, but also the disutility involved in the postponement of present enjoyment, or, in brief, *abstinence*.

4. The *labor* theories. Under this name Boehm-Bawerk includes a number of theories which agree in considering interest as the remuneration for "labor" performed by the capitalist. Concerning the nature of this "labor" there is a divergence of views.

(*a*) The *English* group of authors, especially James Mill, regards interest as wages for the labor of producing capital.

(*b*) The *French* group, chief among which is Courcelle-Seneuil, defines interest as the "wages of saving," and emphasizes the will-power and firmness of purpose required to save wealth.

(*c*) The *German* group, to which many so-called "socialists of the chair" belong, regards the ownership of land and of capital as a social office or "function," and defines the return from land and capital as a kind of salary due to the leaders of agricultural or industrial enterprises. This conception manifestly makes little or no distinction between profits and interest.

5. The *exploitation* theory. This celebrated theory, founded by Rodbertus and Karl Marx, regards rent, interest, and profits as all due to the exploitation of workingmen. Accepting the defective terminology of the orthodox economists, these authors frequently employ profits and interest as interchangeable terms, and direct their attack against the whole complex return secured by the capitalist. The socialistic attack is much more effectual with regard to profit than with regard to interest; we shall therefore discuss the exploitation theory when we take up the legitimacy of profits.

As applied to interest, the exploitation theory may be fairly stated in the following propositions: —

The value of any commodity is measured by the quantity of labor required to produce it.

Capital is not an original and independent factor of production, but may be resolved into the labor that produced it.

The whole product belongs in equity to the laborer. The capitalist, however, takes advantage of the laborer's necessities and compels him to make a wage-contract that despoils the wage-earner of a large part of the product of his labor; this is done, of course, under the sanction of law and custom.

6. The sixth group of authors treats the problem of interest as primarily a problem of value and regards the influence of *time*, in the estimation of values, as the fundamental cause of all economic phenomena connected with interest. "Present goods," says Boehm-Bawerk, the principal advocate of this theory, "are as a rule worth more than future goods of like kind and number." The productivity of capital is not the only cause of this higher valuation of present goods; there are two other causes. One is the fact that many men are less efficiently provided for in the present than they hope to be in the future. There is, moreover, a tendency of mankind to underrate or discount anything in the future.

Roundabout methods of production are generally more profitable than direct methods. But long, circuitous processes of production require the necessary money or present goods to meet the demands that arise during production. Hence present goods, which enable us to obtain the advantage of roundabout methods, are worth more than future goods, which are not yet applicable productively. In other words, the capitalist may obtain, with a proportionately smaller quantity of present (and therefore more valuable) goods, a proportionately larger quantity of future (and therefore less valuable) goods, which, as time goes on, gradually grow in value until they reach, so to speak, the status and value of *present* goods. Whoever exchanges present for future goods demands some premium, some surplus in value; this premium or surplus is *interest*.

Some of these theories are endeavors to explain interest as an economic category. Others are attempts to justify the capitalist's income. We may safely accept the principle that so long as there is capital there will be interest, and as the socialists by no means contemplate the destruction of capital, interest will exist in a socialistic community. But who shall collect this interest? That is an entirely different question. Does not the owner of capital in modern society possess a despotic power, and does not interest therefore partake of the nature of an unfair income?

Nowadays, the discussion regarding the legitimacy of interest has been shifted to another domain; and the present form of the question is: Shall we admit the legitimacy of private property in capital? If we do, the legitimacy of interest follows as a logical consequence. Likewise, once we have admitted that houses may become objects of private property, the legitimacy of rent requires no proof. What is the need of inquiring whether the house can be employed productively, or whether the owner, by not occupying it, undergoes privation?

Even in case borrowed wealth has not been employed productively, and could not, by reason of circumstances, have been so employed; or, in other words, in case it is *not capital*, but simply objects of consumption, why should the owner of wealth be obliged to lend it without compensation? The admonition *mutuum date nil inde sperantes* is evidently not economic, but evangelical, like the teaching that he who has two garments should give away one of them. From the economic and legal point of view, a sufficient justification of interest consists in the simple principle that no man shall be deprived of his belongings, and that whoever consents to relinquish possession of them to the advantage of others has a right to do this on whatsoever conditions it may please him to prescribe.

What matters it whether or not the lender thus experiences privation and makes a sacrifice? Since when is a person's remuneration, be it profit or wages, proportionate to the sacrifice he has made or the privation he has experienced? By virtue of what principle shall I be obliged to put gratuitously at the disposal of my fellow-men all the property that I cannot or do not wish to make use of for myself? Must I allow other people to occupy my apartments because I am compelled to be away, or let them eat my dinner because I am not hungry?' Such a doctrine would need to be based on the principle that in this world a man has a right only to the amount of wealth strictly necessary for his own consumption, and that the surplus belongs by right to all mankind. To accept this principle is to adopt communism pure and simple.

For these reasons, the question is to-day scarcely a matter for discussion. Catholic social reformers, while retaining the old dislike for interest, — *usura vorax*, — confine themselves to seeking a means for diminishing the power of money; and this is a perfectly legitimate endeavor. Socialists themselves, at least those belonging to the collectivist school, frankly admit that interest is an inevitable consequence of the right of private property. They simply shift the controversy to another quarter, and, instead of attacking the legitimacy of interest, they attack the legitimacy of private property in capital, as we have pointed out in the preceding section. It is plain that whenever the individual ownership of capital is abolished, the payment of interest will also cease.

As the legitimacy of interest seems so evident to-day, why has it so long been denied? Because of historical circumstances which we shall now consider.

III. History of Loans at Interest

Throughout antiquity, loans were made at interest, and often on hard conditions. But such great men as Moses, Aristotle, and the severe Cato himself, have roundly stigmatized it. After the advent of the Christian religion, even more vigorous attacks were made upon it by the Church Fathers; and when the power of the Church had been firmly established, loans at interest were expressly forbidden by civil as well as by canon law.[1]

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[1] The formal prohibition of loans at interest between Christians dates from the Council of Vienna, held in 1311. It was still permitted on the part of Jews, because it was felt that money-lenders could not be dispensed with, and that the Jews rendered Christians a great service by bearing the burden of this sin.

Although this attitude subsequently came to be regarded with profound contempt and considered as betraying total ignorance of economic laws, it can very easily be explained by the conditions which prevailed at that time.

We have already called attention (page 359) to the fact that until a comparatively recent period, credit — the loan of money — could not possess a productive character; it could serve, and as a matter of fact did serve, only for consumption. When, therefore, the ancients and the canonists condemned interest as usurious, they were not so greatly mistaken as is sometimes supposed. They showed that they possessed an accurate knowledge of the economic state of their own times.

The borrowers in those days were poor plebeians who asked the Roman patricians for means to buy bread, or impecunious knights who obtained their equipment for the crusades from the Jews or the Lombards of the Middle Ages. In both cases we have examples of personal, and therefore unproductive, consumption. When the time for settlement came, the debtors could pay neither interest nor capital; they were therefore forced to surrender themselves and their labor, and become the slaves of their creditors.[1] Under these circumstances, loans at interest led, on the part of the lender, to an abuse of the right of property, and from the borrower's point of view became an instrument of spoliation and destruction. This is sufficient to explain the old and stubborn prejudice against interest.

In those days capital was scarcely known, even by name. (See page 118.) Land was almost the only kind of productive wealth. Hence no one thought of denying the justice of rent for land; for when a farm is leased, one can see the income proceed, so to speak, from the soil itself in the shape of crops, and it was clearly felt that the rent paid to the landlord was not paid out of the tenant's pocket. But the same was not true of money, and it seemed perfectly correct to declare with Aristotle that money cannot produce more money. This was why St. John Chrysostom, contrasting the landlord with the capitalist, became indignant because the lender "practised a damnable kind of agriculture, reaping where he had not sown."

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[1] The houses of Roman patricians contained cellars that served as prisons (*ergastula*) for insolvent debtors. In the Middle Ages, Shakespeare's example of Shylock notwithstanding, customs became less severe; a powerful but insolvent debtor was only required to send hostages to his creditor and to pay for their food, — which was still a very burdensome obligation. Does not this condition of things justify the canonists' saying, *jus belli, jus usurae?*

Moreover, a proof that the arguments of the canonists were not pure casuistry consists in the fact that in all cases where it was plain that the borrower would obtain a profit from the use of the loan (by carrying on trade, for example), and where the lender incurred some risk, interest was considered legitimate.[1]

Yet it might be objected that, since the canonists frankly admitted private property in capital, or at least in money, they ought also to have seen the force of such arguments as those contained in the preceding section, and admitted the legitimacy of interest. But this objection would not be valid. The loan of money necessarily implies the use of the money lent, *i.e.* its exchange for something else; and it seemed absurd to the canonists that the lender, after having given up the money lent, should exact a money-payment for its use.[2]

But if the lender transferred the full ownership of the amount to the borrower, and thus gave up all claim to his capital, they readily admitted the legitimacy of the resultant income of the creditor, for then the loan became an income-yielding *investment.*

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[1] The Lateran Council of 1515 stated the matter with perfect clearness: "There is usury wherever there is profit which does not arise from something productive and which implies neither labor, nor expense, nor risk on the part of the lender."

[2] Albertus Magnus and Thomas Aquinas insisted that money cannot be used by one person and owned by another. A lender, they argued, is "therefore not entitled to compensation for the use of money loaned, but only to its restitution, since the fact of borrowing vested ownership in the borrower; nor can he claim compensation for the time that elapsed between the act of lending and the restitution, for time belongs to God, and cannot be bought and sold. Therefore a loan must be either made outright, or else

The Reformation naturally brought about a reaction against the canonical doctrine. Calvin showed a disposition to tolerate loans at interest under certain conditions; and in the eighteenth century two great French Huguenot jurists, Dumoulin and Saumaise, refuted the scholastic arguments against usury.[1] Yet not until we reach the scientific economists, Turgot ("Mémoire sur les prêts d'argent," 1769) and Bentham ("Defence of Usury," 1787), is the economic doctrine in favor of loans at interest firmly established. Economists are now unanimous in its acceptance, and their opinion is well founded. Why? Because the economic conditions of life are not what they were at the time of the Church Fathers and the scholastics.

On the one hand, the parts have been inverted. To-day the impecunious do not usually borrow from the wealthy, nor the common people from the patricians; but the rich and powerful — speculators, gigantic corporations, banks, the owners of gold mines, and, above all, the governments of great

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in the form of a mortgage or bill of sale, and cannot involve a thing like money, the very nature of which is repugnant to the rules providing for compensation in cases of borrowing and lending." — COSSA, "Introduction to the Study of Political Economy."

The student must bear in mind that the term *usury* originally meant *use-money* and was synonymous with our term *interest*, although to-day it is used to mean exorbitant or extortionate interest.

[1] It is interesting to note that the Jesuits contributed quite as effectively as the Protestants to the recognition of loans at interest as permissible. They invented subtle devices for avoiding the prohibitory law, such as the *contractus trinus*, a more or less fictitious contract by which the lender was regarded as a partner in the risks and profits of an enterprise, who insured himself against losses and gave up his claim to profits, in consideration of a fixed sum payable annually.

Interest was also allowed in the form of a penalty for the failure to repay the loan at the specified time; and as nothing prevented specifying the time for repayment as the day after making the loan, it was a very simple matter thus to elude the law.

(For further details, consult Ashley, "Economic History," Chapter 7, and Boehm-Bawerk, "Capital and Interest," Vol. I.)

nations — most frequently borrow from the public, from the common people, and make up their funds out of the savings of the masses. The result is that oftentimes the lender is a worthier object of compassion than the borrower. Public opinion and the law are not needed to protect the weak and defenceless borrower against the rapacity of the lender, but rather to prevent the ignorant lender from being exploited by individuals and corporations that make a practice of borrowing enormous amounts from the general public, — of which modern financial history furnishes so many scandalous examples.[1]

On the other hand, — the two changes were concomitant, — the very nature of the loan contract became different from what it was. Men, as a rule, do not now borrow in order to obtain food, but in order to increase their wealth. To borrow for purposes of personal consumption is the exception, and credit has assumed the true economic character of a method of production.[2] The entrepreneur, that is to

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[1] "Everybody knows what brigandage is carried on to-day under the guise of founding *stock companies*. Nothing is more shameful or more criminal. It is one of the saddest symptoms of public demoralization. . . . The place of the great bands of adventurers and robbers who held merchants for ransom, and pillaged the country in the Middle Ages, is now taken by stock companies, many of which carry on their operations with more security, more impunity, and more leisure and profit for their founders and directors than their mediæval compeers." — LEROY-BEAULIEU in the *Economiste français* for July 21, 1881.

[2] This is not yet universally true. In the country districts, and especially in the farming regions of Russia, along the Danube, in Italy, in Algeria, etc., credit still possesses its former nature, peasant borrowers being exploited and ultimately expropriated by money-lenders. This state of affairs has given rise to the anti-semitic movement, and shows that in some countries, and under certain conditions, the old laws against usury may be perfectly defensible.

But even in these places agricultural credit associations, to which we have already referred (page 395), have begun to change the respective situations of debtors and creditors.

In advanced countries, credit for purposes of consumption, *i.e.* borrowing money in order to spend it unproductively, is practised only by wealthy prodigals and a few of those who patronize the pawnshops. We must, however, place in the same category the *governments of great nations*, which say, the real agent and director of production (see page 484), hires the capital and pays the interest; and this interest is part of the cost of production just as much as the wages of labor or the rent of the factory. It would, therefore, be absurd to dispense, for humanitarian reasons, with the payment of interest; for this would simply increase the entrepreneur's profits.

Even to-day, however, laws concerning the loan of capital bear traces of the old condemnation of interest. Many of the states of the Union have so-called usury laws, which fix the maximum rate of interest, and declare that any excess above this rate shall not be recoverable. In only a few of them is a higher rate than twelve per cent allowed by law, despite the constant protests of economists, who would have the rate of interest determined by the forces of demand and supply, like wages and rent.

IV. The Laws of Interest

Early modern political economists took no particular pains to define the term *interest*. Indeed, many of the classical economists were unable to get a very accurate notion of the term, because of their failure to separate the earnings of capital *per se* from the remuneration due to the work of successful superintendence; because, in other words, interest and profits were treated together under the general name of *profits*. In popular speech to-day, profits are sometimes made to include the interest of capital, as when a man not only directs an enterprise, but also supplies the capital required to found it and carry it on. The two incomes here united, are, nevertheless, distinct; if the director of the enterprise, *i.e.* the entrepreneur, were obliged to borrow his

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during the past century, have consumed, for the most part unproductively, and even in works of destruction, $30,000,000,000 of capital, for which the unfortunate taxpayers will pay interest forever, or at least until these governments are declared bankrupt. This class of borrowers is, to be sure, too powerful to need compassion; it is the taxpayers that have a right to be pitied.

capital, it would immediately become apparent that profits and interest are separate and different incomes.

The distinction between profits and interest, however, is not the only one that economists have deemed it advisable to draw, in this connection, for the sake of clear thinking. They have found that the term *interest* is itself often applied to a composite of various elements; they have therefore endeavored to remove from the concept of interest several elements which, in popular parlance, are included in that term. It follows, therefore, that the term *interest* means, in the vocabulary of economic science, something different from its customary acceptation. Pure interest, *i.e.* interest in the strictest economic sense of the term, which may be defined as the *price paid for the use of capital*, or, from the distributive point of view, as the *share of the capitalist in the product of industry*, springs from the circumstance that the value of goods produced with the help of capital is greater than the value of the goods consumed in their production plus the cost of the labor employed.

In the real world of business we rarely encounter interest pure and simple, but nearly always find it combined with other kinds of compensation, of which the following two are most frequently present: —

(*a*) The *cost of renewing* fixed capital — for example, a house or a piano — the constant use of which involves wear and tear amounting to gradual destruction. The owner of borrowed capital must therefore receive, besides a payment for the use of the house or the piano, a sum sufficient to keep it in constant repair.

(*b*) The payment for the *risk* attending the investment of capital.[1]

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[1] This element of risk, to which we refer again later, may depend, as Roscher points out, "on the doubtful reliability of the person to whom the capital is confided; on the uncertainty of the branch of business in which it is intended to employ it; or on the uncertainty of the commercial situation in general; but especially may it depend on the uncertainty of the laws." — "Principles of Political Economy," translated by Lalor, Vol. II, page 100.

Whenever the transaction of loans involves exceptionally high expenses of management, as in the case of loans made by pawnshops, the term *interest* usually involves a third element, consisting of the charge due to these exceptional expenses involved in placing the loan.

Whatever remains when these foreign elements have been removed constitutes pure interest. Pure interest, therefore, so nearly as we can approach it in reality, is that which would be paid for the loan of *money*, in *large sums* and for *long periods*, under conditions of *absolute security*.

If capital were loaned in the shape of commodities, — such as factories, machinery, and other instruments of production, — and not in the shape of money, a *different* price would have to be paid for the loan or hire of each commodity, according to its quality, durability, and productivity, just as the rent of farms differs according to their fertility and accessibility. But capital is usually lent by means of money or of credit-instruments representing money, because the borrower prefers to receive money instead of goods, which may be ill suited for the purposes that he has in view; and, furthermore, because capital is necessarily offered in this form by those who have saved wealth and want to invest it. Men do not usually save capital in the shape of commodities, but in the shape of money.

This fact accounts for the frequency of the statement that interest is paid for the use of money. What the borrower really wants, however, is not money, but the goods that money will buy, — the goods needed to carry on a productive enterprise. As Walker puts it: "One borrows $5000 and gives a note for that sum, with interest. With this money, he purchases live stock, machinery for his factory, or goods for his trade: these were what he wanted: these were what he really borrowed; these are what he really pays interest upon. The money was solely a means to that end."

An important consequence of this fact, clearly perceived by Hume long before Adam Smith published his "Wealth of Nations," is that the rate of interest does not depend on the amount of gold and silver that the country possesses, "but on the amount of its riches or stock." Yet it is still a popular idea that the rate of interest, *i.e.* the price paid for the use of capital, depends solely or largely on the amount of money in the country. When interest is high, people say that money is scarce. When it is low, they declare that money is abundant. This idea is correct in the case of short-time loans, usually made by bankers to business men who have contracted debts in buying goods, and who must make payment for them before they can be sold. These loans are usually made in the form of bank discounts. When money becomes "tight," banks find that their reserves diminish, and are obliged to curtail their loan and discount business by raising the interest on loans and increasing the rate of discount.[1]

But this idea is false in the case of long-time loans, the only kind which concerns us here in connection with the study of the capitalist's income. In refutation of the idea that an increase in the supply of money lowers the interest on permanent investments, while a decreased supply raises it, let it suffice to say that the *income* from loaned capital, as well as the *capital itself*, exists in the form of money, and that therefore the rate of interest, *i.e.* the ratio between income and capital, cannot be affected by a factor which, as a fluctuation in the value of money, operates equally and simultaneously upon both terms of the ratio.

The substitution of money for commodities in loan-transactions, by which what would otherwise have been simply a case of *hire* becomes *money-lending*, or *investment* properly speaking, involves two further consequences of great importance.

In the first place, it introduces in the determination of interest (in the wide sense of the term) a new and important element already referred to, viz. the *solvency* of the debtor. If the debtor's solvency, that is, his ability to meet his obligations, is doubtful, this involves additional risk for the lender, and will lead him to demand higher interest to counterbalance the possibility of losing his capital. This premium for insurance against the risk of loss[1] — the lender furnishing his own insurance — accounts almost entirely for variations in the rate of interest on different investments.

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[1] We have already seen that there is a close connection between the supply of money and the rate of discount (page 388, etc.).

In the second place, it tends, when there is equal security and perfect mobility of capital,[2] to eliminate all other causes of variation in the rate of interest and to *equalize* the cost of borrowing any or all kinds of capital. The different employments of capital tend uniformly to pay the same rate of interest, for if one branch of business is much more profitable than another, capital is allowed to flow into the former and out of the latter until a level is reached. Money-capital, we have already learned, can be sent almost without cost from any part of the world to any other part. All kinds of capital, therefore, being lent and borrowed in the form of money, are on the same footing; qualitative differences disappear, and only quantitative differences remain.[3]

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[1] This is what the Germans aptly call *Risikoprämie.*

[2] We have already said, elsewhere, that the assumption of perfect mobility and perfectly free competition is more likely to be realized in regard to money-capital than in regard to most other commodities. Yet the fact that there are differing rates of interest in different markets, even for investments offering precisely the same degree of risk, shows that competition is not perfect. The causes for this must be found in the disinclination of capital to emigrate, the inertia of capitalists or borrowers, the lender's or borrower's ignorance of the money-market, or the pressing nature of the borrower's need for capital.

[3] There would seem to be no differences of *durability* so long as capital is in the form of money. When capital is concrete, *i.e.* when it exists in the shape of productive goods, the cost of its maintenance is an important matter, and something must be paid — in addition to the cost of its use — for the "wear and tear" to which such capital is subjected. Money-capital being by nature indestructible, and undergoing no wear and tear, all differences in

It follows from what has been said regarding the exceptional mobility of money-capital, that there is at a given time but one and the same rate of interest in the money-market of a whole nation, or even of the whole world.

The question now arises: What are the natural economic laws which determine this general rate of interest, *i.e.* the price paid for the use of money-capital? Unlike the question concerning the fundamental reasons for the existence of interest as a category of income, — a question with regard to which Boehm-Bawerk divides political economists into six separate and distinct groups or tendencies,[1] — there is considerable agreement among economists with regard to this subject. We have a pretty fair idea of the causes affecting the general rate of interest. We cannot, to be sure, attribute its determination to any single cause, any more than we succeeded in discovering a single determinant of the value of goods (page 64) or of the price of labor (page 521); there are really many factors, which may be summed up in the old formula of supply and demand or in the newer doctrine of final utility.

In this connection, as, indeed, in every attempt to interpret it scientifically, the formula of supply and demand requires some explanation.

The supply of capital, seeking investment in the form of money and credit instruments, depends on the following factors: (*a*) On the nation's capacity for saving, promoted by good institutions to facilitate the storing of wealth and good credit institutions to provide investment for the capital thus created. (*b*) On the security afforded to investors; if

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the cost of capital that are due to this necessity for maintaining the value of concrete capital should disappear.

For the borrower of capital, the matter is different. He must *return the capital* at the end of a certain period, say ten years; for him, this is equivalent to its destruction in that space of time. If he is a careful business man, he will provide for the renewal of the capital just as though it existed in the shape of concrete goods. All industrial firms act on this principle.

[1] See page 558.

this is lacking, the economized wealth will not be put on the loan-market, but hoarded unproductively. (*c*) On the existence of a large class of persons unable or unwilling to utilize their own capital in active business; for it is evident that when every member of society employs his own capital, capital will not be offered on the market, no matter how abundant it may be.

The demand for capital, on the other hand, is determined by its productivity.[1] Unlike the cost of hiring land, which depends so largely on the fertility of each particular farm, we are, in the case of loans in capital, not concerned with the productivity of this or that particular kind of capital; we are not considering capital in the form of goods, but capital *in genere*, capable of being transformed into any kind of commodity; we are, in other words, concerned with capital as a mobile, homogeneous fund. Professor J. B. Clark,[2] who has probably done more than any other economist to distinguish this concept of capital from the idea of capital as a sum of concrete commodities, contends that it is not money, nor even materials, machines, or buildings that the capitalist lends, but a sort of general draft upon society, — value in a readily convertible form; a sort of abstract fund which the entrepreneur converts into concrete capital.

In a new country possessing an abundance of natural resources, virgin lands to be brought under cultivation, mines to be worked, and roads to be built; or even in an old country in times of great industrial progress, such as the middle of the nineteenth century, — this general state of productiveness will, as experience has shown, cause a great increase in the rate of interest.

But whether a country be new or old, as long as there is any advantage in the employment of capital, or of increased quantities of capital, in any branch whatever, the demand for capital will continue to increase. The point beyond which the use of additional capital would not be advantageous has never been reached in the industrial life of any nation; nor is it likely ever to be reached. In economic life, therefore, we find, on the one hand, a practically unlimited demand for capital for productive purposes, and, on the other hand, a supply of capital insufficient to satisfy the demand. This circumstance is of the utmost importance in determining the rate of interest. Wherever the supply of any commodity is not fully equal to the demand (in the widest sense of that term), part of the demand must forego satisfaction; it remains, so to speak, "potential." Capital will, of course, first seek those investments in which the returns are greatest and surest; and whatever capital is not thus employed *must turn to less and less productive uses.*

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[1] When loans are made for purposes of *consumption*, the productivity of the capital is of course out of the question, and the rate of interest is limited only by the need of the borrower; hence it may become exorbitant.

[2] *Annals of the American Academy*, July, 1890.

Let us suppose that the earliest and most productive uses yield an interest of ten per cent, whereas subsequent investments of capital yield decreasing returns, until we find that the best rate the capitalist can obtain for additional capital is three per cent,[1] because no entrepreneur is willing to pay more for its use under existing conditions of production.

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[1] This must not be supposed to imply that the supply of capital necessarily increases more rapidly than the new opportunities for its investment, and that therefore the rate of interest is bound to fall continually. (See the next section.) This may or may not be the case. In a progressive nation it is not unlikely that possibilities of new and *more profitable* investments for capital will be offered from time to time. If this be the case, and the supply of capital fails to increase rapidly enough to permit carrying on all the old as well as all the new enterprises, capital will be *removed* from some of the former to the latter; hence the *marginal utility* of capital (the productivity of the increment of capital which is applied least productively, but which the owner nevertheless continues to apply) may be *greater* than before, and thus cause a *rise* in the rate of interest.

The important point is that some capital is *less productively employed* than all the rest. Yet interest must be paid for it; and as there can be but *one price* for all the increments of a uniform commodity, *i.e.* one rate of interest for capital *in genere*, this rate will be that paid for the capital engaged least productively, whether it be "old" or "new."

New capital, if invested at all, will have to be invested at this rate. But will those entrepreneurs who borrowed capital at ten per cent continue to pay this interest for a commodity now obtainable at three per cent? Evidently not; and therefore, sooner or later, all capitalists will have to be satisfied with three per cent. As Roscher puts it, the rate of interest is determined by the "return from the least productive application of capital which must nevertheless be made in order to find investment for all the capital that seeks it"; or as Von Thuenen, the acknowledged founder of this law, formulated it, interest is determined by the return secured "from the last increment of capital that is employed productively."

Interest resembles wages and rent in the respect that the lender of capital, as well as the laborer and the landlord, contracts for a specific sum, agreed on in advance and in no wise influenced by the outcome of the productive enterprise in which his goods or services are applied. In return for a fixed annuity, expressed in *per cent* of the sum loaned (which is called the "principal"), the capitalist relinquishes all claim to a share in the profits of the enterprise.

There are, however, lenders who would rather share the chances of profit and loss in an enterprise than be satisfied with a fixed but sure compensation. For such as these, modern credit has devised an arrangement by which the borrower, instead of guaranteeing a fixed return, agrees to pay the lender a share of the profits if there are any, or pay nothing at all if there is no surplus above costs. If there are actual losses, these are met with the creditor's capital. Under this arrangement the credit instruments owned by the lender do not belong to the category of bonds or notes,

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[1] A statement of Von Thuenen's theory may be found in Boehm-Bawerk's "Capital and Interest," and in an essay on "Thuenen's Wertlehre" by the translator of this volume. A later form of the same theory, developed by Professor J. B. Clark, is summarized and criticised by Macfarlane in "Value and Distribution."

but are called *shares of stock*, and the income derived therefrom is not called interest, but *dividends*. Dividends should, of course, be greater than interest, because they constitute a more hazardous kind of income and partake of the nature of profits. We shall again discuss this subject when we take up Profits.

V. Does the Rate of Interest tend to Fall?

If it be desirable that wages shall increase, it is, on the other hand, equally desirable that the rate of interest shall fall.

This is desirable, first, from the standpoint of distribution. It would reduce the share of the total product that is appropriated by capitalists as such, and would thus increase, by so much, the share that may go to the other participants in production, including the laborer. Besides, the rate of interest determines not only the income of capitalists; indirectly, it also influences profits, the rent of buildings, and even the rent of land; in other words, it affects the entire income of the propertied classes.

It is desirable, secondly, from the standpoint of production. By constantly lowering the cost of getting capital, and thus diminishing the cost of production, it facilitates the completion of enterprises that are otherwise impossible. Here, let us say, is a piece of land that needs to be cleared, or houses that ought to be built to provide homes for workingmen; but everybody knows that neither the land nor the houses would yield more than three per cent. If, therefore, the current rate of interest is five per cent, it will be impossible to find capital for these undertakings, inasmuch as they can be carried out only at a loss. Hence they will not be attempted. But suppose the rate of interest falls to two per cent. We should immediately push forward the execution of these enterprises. Turgot, in a celebrated figure, compared a fall in the rate of interest to a falling sea-level, which makes it possible to bring more land under cultivation.

But it is not sufficient to show the *desirability* of a fall in the rate of interest. We must ask whether it is likely to occur. Is it of a permanent nature? Can it, moreover, be regarded as a true, natural, economic law, like that of the increasing value of land or even that of the decreasing value of metallic money?

Political economists, especially those of the French optimistic school, from Turgot down to Leroy-Beaulieu, have answered these questions affirmatively. Bastiat regarded the law of a falling rate of interest as among the most remarkable of "economic harmonies."

This opinion is defended both by theory and fact. We shall briefly state the considerations in its favor.

As a matter of fact, there has been a noteworthy decline in the rate of interest; it has fallen during the past thirty or forty years from six and seven to three and four per cent. This is one of the most characteristic economic phenomena of the second half of the nineteenth century.

The theoretical argument is that in a progressive country, capital, like all kinds of artificial wealth, will constantly grow more and more abundant, and that its final utility and value must consequently continue to decrease. The security of investments, moreover, is constantly increasing, at least if we admit that progress means greater faithfulness on the part of individuals in the fulfilment of business engagements, and, on the part of governments, more effective means of enforcing credit claims. If, therefore, capital is becoming more abundant, and investments are becoming more secure, there are grounds for believing that capital will become less productive and bring less revenue to its owners. There are valid reasons for believing that the returns from agriculture will decrease by virtue of the law of diminishing returns, while those of industry and transportation will decrease because the opportunities for the employment of capital in these branches are limited. It is, for example, undeniable that the railroads still to be built in this country will be much less productive than the great lines already constructed. Thus, of all the factors that must be taken into account, there is not one that does not lead us to expect a permanent and continual, although perhaps a gradual, fall in the rate of interest.

There would even appear to be no assignable limit to this decline; for there is here no minimum limit such as that which we encounter in the case of commodities, — the value of which cannot long remain below the cost of production, — or in the case of wages, — which cannot fall below the cost of the laborer's subsistence. The sole minimum limit to the rate of interest is that below which the capitalist would be unwilling to lend, and would prefer either to hoard or to consume his capital. Now what is the rate below which he would prefer either to spend his savings or keep them under lock and key? Is it one per cent or one per thousand? This is a question that no one can answer.[1]

These are the arguments of those who prophesy a constant decline in the rate of interest; but none of them, in our opinion, is conclusive.

In fact, the very suddenness and extent of the decline which the rate of interest for money has undergone in less than a generation is sufficiently indicative that this is not one of those great historical changes that constitute economic evolution, but a temporary and probably periodic oscillation. History, indeed, confirms this supposition. Under the Roman Empire the rate of interest was no higher than in the middle of the nineteenth century; and in the eighteenth century in Holland it fell as low as it is to-day. The present period of decline, moreover, seems already to be at an end; for since 1899 there has been a noticeable rise in the rate of interest, or (what amounts to the same thing) in the rate of capitalization for the principal kinds of investments.

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[1] Bastiat declares that interest may fall below any assignable quantity, without, however, reaching zero, — thus resembling the curves, known to mathematicians as asymptotic, which continually approach a straight line without ever touching it. Mr. Foxwell, an English economist, has even gone so far as to assert that the time will come when capitalists, instead of receiving interest from those to whom they intrust their money, will pay them for keeping it. This would mean the realization of Proudhon's dream of "gratuitous credit," which has been so thoroughly ridiculed.

• It is only fair to add that Mr. Foxwell refers especially to loans made to banks in the shape of deposits. And in this case it is quite possible that, in consideration of the service which they render depositors, banks may not only pay no interest, but exact the payment of a compensation for safe-keeping. This was what they did formerly.

The prophecies regarding a decrease in the risks incurred by capitalists and the diminished productivity of capital are of doubtful validity. Consider, first, the risks of investment. Can it be said that there are to-day fewer insolvent debtors, fewer business failures, fewer enormous swindles, smaller amounts of capital sunk in hazardous enterprises, than formerly? Are we justified, then, in concluding that things will be different in the future?[1]

With regard to the productivity of capital it is certain that if we consider a particular industry, such as that of railroad transportation or gas illumination, there is a limit to its development. But we must consider production in general, and note that old industries are constantly making room for new ones. Nothing sanctions the assumption, for instance, that transportation by balloon will not be as remunerative as transportation by railroads, or that illumination by electricity or acetylene will be less profitable than illumination by gas.[2]

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[1] We must even take into account some new risks, such as that due to strikes, and consider the increasing burdens which the laws tend to impose upon employers, capitalists, and landlords.

[2] Professor Paul Leroy-Beaulieu, the most ardent advocate of the doctrine of a continual decline in the rate of interest, develops the productivity argument in great detail, and attaches great importance to it; yet this argument, founded in the last analysis on a pessimistic idea, — that of an unavoidable limit to the progress of human industry, — does not seem to harmonize very well with the optimistic views held by this author with regard both to pro-

In short, what seems to us most likely is that the rate of interest will rise again, after having reached a certain minimum level which we are doubtless not far from having attained. The reaction, in fact, has already begun. It is probable that in the future the rate of interest will pass through long alternating periods of rise and fall, just as it has done in the past.

A steady and uninterrupted decline in the rate of interest might be brought about, and Proudhon's dream of gratuitous credit realized, not through the operation of supposed natural laws concerning this matter, but through the rational and persevering effort of men combined into mutual credit associations.[1] This would, indeed, be a most sensible form of collectivism; for if everybody could obtain the use of capital almost gratuitously, what would be the objection to the individual ownership of capital?

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duction and to distribution. This contradiction is revealed in a curious manner by the fact that Leroy-Beaulieu, who alleges the decreasing productivity of capital, refuses to admit the law of diminishing returns in agriculture, and rebukes Ricardo and Mill for accepting it.

[1] Consider in this connection the organization of Raiffeisen banks, discussed on page 395.

CHAPTER III—THE RENT OF LAND

I. The Law of Rent

DOES land yield a revenue? The question seems almost absurd. It is a self-evident truth that all land, except under abnormal circumstances, yields something; and if any proof of this were needed, the fact that land may be sold or rented ought to be sufficient, for it is plain that land would find no tenant or purchaser (except for purposes of pleasure) if it yielded no return.

But that is not the real question. We want to know whether there is a surplus income that is peculiar to the land, separate and distinct from the return for labor and the return for the use of capital.

Some economists deny the existence of such a separate and distinct return. They maintain—we shall see how they try to prove it—that the revenue from land is nothing but the product of capital put into the land by its owner or his predecessors; and that in the last analysis the return from land is necessarily made up of wages, interest, and profit. But this theory is not generally accepted; it seems to be inspired primarily by a desire to justify and defend private property in land.

The classical economists looked at this matter differently. The Physiocrats, and even Adam Smith and J. B. Say, regarded the return from land as really due to natural, productive qualities of the soil; and if the landlord profits by these qualities, this is simply because property in land constitutes a genuine monopoly, a privilege which gives him control of the forces of nature and the fruitfulness of the soil. They defended this monopoly, moreover, on grounds of public utility which we shall examine presently.

The landlord may either take advantage of this natural source of wealth himself, by selling the products of the land, or he may transfer the privilege of exploitation to some one else in exchange for a regular money-payment resembling that received by the capitalist for the use of his capital.

This explanation of the revenue from land implies the idea that nature can create value; it implies adherence to the doctrine that value is based on utility — in the material sense of this term.[1]

Such an explanation could not satisfy the acute mind of Ricardo. We know that this great economist was the principal author of the theory according to which value depends on labor and the cost of production. Therefore he could not, on the one hand, without demolishing this whole theory, admit that the value of land or of its products is created partly by nature. Nor could he, on the other hand, hold that the return from land represented nothing more than the labor of cultivation; for everybody knew that land, especially in England, could be hired to tenants, who, after paying rent for it out of the product of the soil, still had enough left to live on and to pay all the expenses of cultivation. In order to escape this dilemma, Ricardo invented his celebrated theory of land-rent, which has served for more than half a century as the subject of innumerable discussions among economists.

Originally, says Ricardo, as men were obliged to cultivate only a small section of land, they chose the best plots.[2]

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[1] This was evidently Adam Smith's meaning when he said: "In agriculture, nature labors along with man;" the share due to her help "is seldom less than a fourth, and frequently more than a third, of the whole produce."

[2] At the risk of tedious repetition, we here quote Ricardo's own words concerning the fundamental part of his theory.

"On the first settling of a country, in which there is an abundance of rich and fertile land, a very small proportion of which is required to be cul-

Still, despite the fertility of these plots, their cultivation did not yield a greater income than could have been obtained from any other employment of labor and capital; as there was plenty of land to be had for the taking, land and its products were subject to the law of competition, which reduces the value of all commodities to the level of the cost of production.

But the increase of population necessitates an increase of production; and when all the land of the first quality has been appropriated, *less fertile land must be put under cultivation;* that is to say, land on which the cost of production is higher. Let us suppose that land of the first degree yields 30 bushels of wheat per acre, at an outlay of $30, or $1 per bushel. Then land of the second degree will produce, let us say, only 20 bushels for the same expenditure, and

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tivated for the support of the actual population, or indeed can be cultivated with the capital which the population can command, there will be no rent; for no one would pay for the use of land, when there is an abundant quantity of it not yet appropriated, and, therefore, at the disposal of whosoever might choose to cultivate it."

"On the common principles of supply and demand, no rent could be paid for such land, for the reason why nothing is given for the use of air and water, or for any other of the gifts of nature which exist in boundless quantity." "If all land had the same properties, if it were unlimited in quantity, and uniform in quality, no charge could be made for its use, unless where it possessed peculiar advantages of situation. It is only, then, because land is not unlimited in quantity and uniform in quality, and because in the progress of population, land of an inferior quality, or less advantageously situated, is called into cultivation, that rent is ever paid for the use of it. When, in the progress of society, land of the second degree of fertility is taken into cultivation, rent immediately commences on that of the first quality, and the amount of that rent will depend on the difference in the quality of these two portions of land."

"With every step in the progress of population which shall oblige a country to have recourse to land of a worse quality, to enable it to raise its supply of food, rent, on all the more fertile land, will rise."

"The exchangeable value of all commodities [and therefore the price of agricultural products] is always regulated by those who continue to produce them under the most unfavorable circumstances; meaning, by the most unfavorable circumstances, the most unfavorable under which the quantity of produce required renders it necessary to carry on the production."

the cost of production per bushel will be $1.50. It is clear that the owners of this land will not be able to sell their wheat for less than $1.50, for any lower price than this would involve loss, and they would cease raising wheat. We assume, however, that the population cannot get along without them. It is equally clear that those who produce on land of the first degree will not consent to sell their wheat at a lower price than their neighbors. They, too, will sell it at $1.50 per bushel. But as it still costs only $1 to produce, they will now realize a gain of 50 cents per bushel, or $10 per acre; and this gain is precisely what, in Ricardo's theory and in the recognized vocabulary of political economy, is called *rent*.

At a later stage, as population continues to grow and to require an increased supply of the means of subsistence, men are obliged to cultivate lands of even inferior quality,[1] — lands, for example, that will yield only 15 bushels of wheat per acre.[2] This means an outlay of $2 per bushel. For reasons stated above, this will be the price for all the wheat on the market. Henceforward the owners of land of the first category will have a surplus or rent of $1 per bushel, or $30 per acre, and the owners of land of the second category will begin to receive a surplus or rent of 50 cents per bushel, or $10 per acre.

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[1] Or, lands of inferior *accessibility*. Given, two farms of uniform fertility (whose product is necessary to satisfy the demand for wheat in a given community), one of which is twice as far away from the market as the other, so that the cost of transporting a bushel of wheat from one to the market is 50 cents more than when the wheat is brought from the other farm; here, clearly, the second farm has an advantage involving the same consequences as greater fertility.

Differences in accessibility may be quite as important as differences in fertility. Especially in the case of land in or near cities, this is an important element even for agricultural purposes. Although Ricardo saw its importance, von Thuenen was apparently the first author to appreciate its full significance and fully to discuss, in connection with accessibility and rent, the influence of transportation facilities.

[2] Why is it assumed that men will be obliged, in order to increase production, to bring new land under cultivation? Can they not increase the output by applying better, more intense methods to the good land already cultivated? There is no doubt that they can. But, by virtue of the law of diminishing returns, every increase in the yield, beyond a certain limit, means *more than proportionate* increase of outlay, and will consequently involve a rise in the cost of production. Take the land yielding 30 bushels at an outlay of $30 per acre. We might, perhaps, succeed in getting 60 bushels per acre out of this land, but it would mean an expenditure of $80 or $90, — certainly more

This "order of cultivation," as Ricardo calls it, may go on indefinitely, always causing a rise in the price of food, to the detriment of consumers, and an increase in rent, to the benefit of landlords whose income is augmented without any effort on their part, and whose prosperity has its source in the impoverishment of the rest of the community.[1]

In Ricardo's theory we must take it for granted — and this assumption has given rise to numerous objections — that there is always some land for which no rent is paid in the strict sense of the term, *i.e.* land which yields no return except for the capital and labor expended on it. This is the land, however, that plays a decisive part in the determination of rent, inasmuch as it serves as the standard, as the basis of comparison with other lands. The income of all these other

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than $60, — and the cost of production would rise to $1.30 or $1.50 per bushel. The ultimate result would thus be the same whether we bring new land under cultivation or apply a more careful and costlier system of agriculture to the old land.

In this connection the section on the Law of Diminishing Returns should be re-read (page 92).

[1] Ricardo's whole theory was aimed, in the opinion of Professor S. N. Patten (who has made a careful study of the work of the English economist), at the controlling political power of British landlords three-fourths of a century ago. "Nothing," says Ricardo, "is more common than to hear of the advantages which the land possesses over every other source of useful produce, on account of the surplus which it yields in the form of rent. Yet when land is most abundant, when most productive, and most fertile, it yields no rent; and it is only when its powers decay, and less is yielded in return for labor, that a share of the original produce of the more fertile portions is set apart for rent. It is singular that this quality in the land, which should have been noticed as an imperfection, compared with the natural agents by which manufactures are assisted, has been pointed out as constituting its peculiar pre-eminence."

lands is due, not precisely to their fertility (for if each plot were alone under cultivation, not even the most fertile would yield a surplus, for the reasons that we have stated), but to their *relative* fertility, *i.e.* to the comparative barrenness of competing lands; rent is not due to the generosity of nature, but to her niggardliness. The owner of a fertile plot of land occupies a privileged position. He enjoys, as it were, a monopoly; but a monopoly of a peculiar kind, which does not consist in being able to sell *above* the market price, but in being able to produce *cheaper* than the market price. It may be objected that this is a distinction without a difference. But this objection is not valid; for while the ordinary monopolist causes a disadvantage to the public by screwing up prices, the landlord who receives rent must abide by the price fixed in the market by forces that are beyond his control. Even if a spirit of generosity should prompt all the owners of wheat farms to relinquish their rent, the current price of wheat would not fall one cent; such conduct would simply amount to a gift to their tenants or those who happened to buy the wheat first.[1]

In other words, prices are not high because rent is paid, but rent is paid because prices are high. Rent is not the *cause*, but the *effect* of the price.[2]

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[1] In this statement we have in mind the present system of private property; for things would be different under a system of common ownership. If society collectively owned all the land, it would be possible to establish an average price somewhat lower than the cost of production on the poorer lands and somewhat higher than that on the better lands, thus balancing the losses on the former by the gains on the latter in such a way as just to cover the total costs. It cannot be denied, on theoretical grounds, that this would mean a reduction of the price.

[2] Says Ricardo: "Corn is not high because a rent is paid, but a rent is paid because corn is high."

The same idea may be expressed by the celebrated formula: *Rent is not part of the cost of production.* Wages and interest alone constitute the cost of production; indirectly, under the pressure of free competition, they constitute the value of the product.

From this theory the interesting conclusion is drawn that one might confiscate the entire rent of land by taxation, without affecting the price of cereals.

This theory of land-rent is now somewhat out of favor. Economists of the liberal school regard it as dangerous to the right of private property, whereas socialists find it too pessimistic with regard to the future of production.

Yet we must accept the theory as true in its general features, — except the historical order of cultivation, which seems to be an *a priori* hypothesis. Although Ricardo regarded this "order" as the very basis of his theory, it is by no means an essential part of it.[1]

Here, let us say, are a hundred bushels of wheat offered for sale in any European market. It is clear that they have not all been produced under the same conditions. Some of the wheat was raised with the help of much fertilizer and intense labor; some of it grew on fertile land almost of its own accord. Some of it came from San Francisco, after passing round Cape Horn; the rest of it, possibly, came from a near-by farm. If each bushel, therefore, bore a label indicating its cost of production, there would probably not be two bushels bearing the same figures. Their original cost of production might easily range, for example, from 25 cents to $2.

But we know, on the other hand, that for goods of the same kind there can only be one and the same price. (See page 187.) The price of all the wheat must therefore be the same. How, then, — the cost of production being different in each case, and the selling-price being the same, — is the connection established between the uniform selling-price and the cost of production?

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[1] By a theory which is diametrically the opposite of Ricardo's, and which was celebrated for a time, the American economist Henry C. Carey attempted to show that the "order of cultivation" is precisely the inverse of that laid down by Ricardo. The most fertile lands, says Carey, are those most difficult to clear because of this very fertility, which results in exuberant vegetation, huge forests, and marshes giving rise to miasma and fevers. The best lands cannot, therefore, be brought under cultivation until agriculture has made considerable progress and is in possession of powerful instruments and advanced methods.

This theory is true for a young nation. It was true for the United States at the time Carey propounded it. It is no longer applicable to the United States of to-day, and it ceased many centuries ago to be applicable to European nations. It would be absurd now to maintain that the most fertile land in France or England is that which still remains to be cultivated.

The answer is this: The selling-price coincides with the cost of production only in the case of that bushel of wheat which cost most to produce. In the example chosen above, this would be the bushel that cost $2. The reason for this is plain. The selling-price must be at least sufficient to cover the expense of production borne by the unfortunate seller who raised his wheat under the most unfavorable conditions of production; for if it were not so, this producer would no longer raise wheat for the market; and, as we assume that the quantity of wheat is not greater than the effectual demand for it, it would be impossible to dispense with this last producer.

We may therefore formulate this proposition: —

Whenever like products are sold in the same market, the value of all tends to coincide with the *maximum cost of production.*

Now it is plain that this price of $2 will mean a gain for all wheat-producers whose cost of production is less than this amount; a gain of $1 for him whose wheat cost $1 to produce, of 80 cents for him whose wheat cost $1.20, of 50 cents for him whose wheat cost $1.50, — and so forth. This gain or surplus is called *rent*, in the economic sense of the term. It is of a peculiar nature that distinguishes it from profit, because, on the one hand, it is wholly beyond the influence of competition, and because, on the other hand, it is due to forces absolutely independent of the conduct of him who receives it. The landlord plays a purely passive part; he profits by circumstances, but does not create them.[1]

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[1] It was Anderson, a Scotchman, who first expounded the law of rent (1777). But Ricardo has taken all the glory of its discovery. Both of them considered it applicable only to agricultural products, but it really constitutes

As used popularly, the term *rent* is applied to whatever is annually paid to a landlord by his tenant. This is, of course, a much wider use of the term than Ricardo would sanction, for it really includes other elements than economic rent.[1]

When the farmer is his own landlord, there is no regular payment either of money or goods. Yet there is rent, in the economic sense of the term, wherever there are differences in the fertility or accessibility of land, no matter whether or not the land is owned by those that cultivate it.

II. The Unearned Increment of Land

Although the historical "order of cultivation" laid down by Ricardo must be rejected, the essential fact which this

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a universal economic phenomenon. Whenever like products are sold at the same price, rent, which is really simply the difference between the cost of production and the selling-price, goes to those who have produced goods under favorable circumstances.

In manufactures, however, this phenomenon occurs only temporarily, because in this branch the most favorably situated producers are able to satisfy the whole demand by increasing their output indefinitely. Instead of utilizing their position of vantage by continuing to sell at the old prices, they prefer to lower prices, undersell their competitors, and drive them gradually from the market. They thus make less profit on each article sold, but greater total profits. (See page 194, note 1.)

In this case the general market price is not determined by the *maximum* cost of production, but by the *minimum* cost of production, — a result which constitutes a great advantage for the public.

[1] Ricardo makes this clear by an example. If, of two adjoining farms of the same extent and of the same natural fertility, one had all the conveniences of farming buildings, and, besides, were properly drained and manured, and advantageously divided by hedges, fences, and walls, while the other had none of these advantages, more remuneration would naturally be paid for the use of one than for the use of the other; yet in both cases this remuneration would be called rent. But it is evident that a portion only of the money annually to be paid for the improved farm would be given for the natural properties and advantages of the soil; the other portion would be paid for the use of the capital which had been employed in ameliorating the quality of the land and in erecting such buildings as were necessary to secure and preserve the produce.

hypothesis merely served to emphasize, viz. the spontaneous and in a sense inevitable increase in the value of land and in the revenue arising therefrom, nevertheless remains true. We must bear in mind that land is a kind of wealth *sui generis*, and has three characteristics which no other wealth possesses in the same degree. These are: —

(1) It provides for the satisfaction of human wants that are essential and permanent.

(2) It is limited in quantity.

(3) It lasts forever.

In view of these facts we can easily understand why the value of the land and of its products increases constantly, — at least in a progressive society, — and how almost all the forces of economic and social progress contribute to its increase.

The growth of population is the principal cause of increasing rent, because the more people there are, the greater the quantity of food that the land must produce for them, and the wider the area they will require to live upon.[1] But the general accumulation of wealth, the building of highways and railroads, the rise of great cities, and even the development of public order and safety, also inevitably contribute to increase that surplus value of land which English economists designate by the significant name of *unearned increment*.[2]

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[1] Henry George has eloquently developed the theory that the value of the land is directly proportionate to the population that lives upon it.

As land is the ultimate source of nearly all raw materials, the increased consumption of almost any kind of wealth means greater demands upon the land. Blatchford, an English socialist, puts this rather forcibly when he says: —

"*All* wealth comes from the land — all flesh is grass. Vegetable food comes directly from the land; animal food comes indirectly from the land, all animals being fed on the land. So the stuff of which we make our clothing, our houses, our fuel, our tools, arms, ships, engines, toys, ornaments, is all got from the land. For the land yields timber, metals, vegetables, and the food on which feed the animals from which we get feathers, fur, meat, milk, leather, ivory, bone, glue, and many other things."

[2] Naturally enough, this surplus value of land is most striking in new countries, such as the United States, because in these countries the forces to

There are but two factors capable of arresting the increase of rent or causing it actually to decrease.

The first is the *competition of new lands*, which may take place as the result of colonization on a large scale or great improvements in the means of transportation. This factor is now operating with extraordinary intensity.[1] But it must, nevertheless, be regarded as a mere accident in economic evolution, — as a temporary disturbing element. In the second half of the nineteenth century so much new and unoccupied land was brought under cultivation that the supply of agricultural products exceeded the consumptive power of the population. But this state of affairs cannot long continue, and when the new countries will be more thickly populated, the law of increasing land-rent, for a time suspended in its operation, will again go into force.

The second factor that may counteract the rising tendency of rent is a great and sudden *improvement in the methods of farming*. This is the most paradoxical as well as a most certain consequence of Ricardo's theory. Without accepting Ricardo's assumption that improved methods would lead to the abandonment of the least productive farms, we can readily see that all progress in agriculture, by increasing

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which we have referred are most intense. Many of the fabulous fortunes of American millionnaires are largely due to the unearned increment from land.

In older countries where these forces are less pronounced and the increase of population is less rapid, the surplus value of the land is less noticeable; yet in the past it has played an important part.

In 1800, the rent of land in England was calculated to be $100,000,000, and in 1880, $300,000,000. During the same period, the population of England likewise had increased to three times what it was in 1800. But the rent (especially of agricultural land) has certainly fallen considerably since 1880, despite the continued growth of the English population.

[1] Ricardo's theory is by no means overthrown by this fact, but confirmed by it; for he declares expressly that there will be no rent in colonies or new countries. The competition of new countries and of colonies is precisely what has caused a temporary pause in the rise of rents in old countries.

It should be noted, however, that although colonization and better means of transportation make rent decline in old countries, they make it increase rapidly in new countries.

the supply of farm products, must decrease the final utility and value of these products, and therefore lower the value of the land itself.

It should be noted that neither the one nor the other of these two possible causes of a decline in rent would affect building lots. This is why the value of these lots has increased so astoundingly, and this, too, is why no category of private expenditure has increased more rapidly than that for the rent of buildings.[1]

III. The Legitimacy of the Rent of Land

If we accept the theory that has just been explained, it follows: (*a*) that land-rent is the result of a kind of monopoly; (*b*) that this income is bound to increase in consequence of social forces entirely beyond the influence of the landlord.

It must be admitted that these circumstances do not speak in favor of the legitimacy of land-rent. Yet if the legitimacy of private property in land is firmly established, that of land-rent would necessarily follow, just as the legitimacy of interest is inseparable from that of private property in capital.

But if we turn from land-rent to property in land, and examine the legitimacy of the latter, the problem is no nearer a satisfactory solution. Not only does land present the three characteristics *sui generis* which we enumerated in the last section, and which alone would suffice to make the justice of property in land questionable, but, above all, it possesses the unique characteristic of *not being a product of labor*. All goods are the product of labor, except land.[2] Hence if we accept the theory that the basis of property is labor, we must conclude that all things may properly come under private ownership, *except land.*[1]

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[1] In 1895 a small building lot on Lombard Street in London sold for $600 per square foot.

[2] It may be objected that a diamond is not the product of labor. This would be false, for a diamond has no value unless it is *found* and taken out of the ground.

The simplicity and logic of this distinction strongly impress the mind. It is of ancient date, for we shall presently see that it can be traced to the very beginnings of property. It is also a modern idea, for in our own times it has met with the approval, not only of socialists, but also of a number of contemporary economists and philosophers.

The optimistic school, however, absolutely denies this distinction, and asserts that land is just as much a product of the farmer's labor as the clay vase fashioned by the potter is the product of the potter's labor. Man, to be sure, has not *made* the land; but neither has he made the clay. Labor, in fact, never *creates* anything; it simply modifies the materials that nature provides. Now this modifying influence of labor is no less real or effectual when applied to the soil itself than when applied to the materials drawn from the earth's bosom. The optimists refer us, moreover, to such patches of land as those which peasants of the Valais or the Pyrenees have literally constructed on the sides of the mountains by carrying all the earth for that purpose in baskets upon their backs. An ancient author tells us how a peasant, accused of sorcery because of the abundant crops that he obtained from his land, while the neighboring tracts were perfectly barren, was called to appear before the Roman magistrate, and there, showing his two arms as the only defence he had to offer, exclaimed, "These are my sole magic." Landed property, to defend itself against the attacks now made upon it, need only give the same proud answer.

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[1] Some persons have endeavored to justify the private ownership and rent of land by the following childish argument: Property in land is legitimate because all land has been bought, *i.e.* exchanged for money, and therefore the rent of land is simply the interest on the money thus invested.

This argument entirely misses the question. A piece of land does not yield a rent of $4000 because it was bought for $100,000; but it sells for $100,000 because it will yield $4000 rent independently of any labor on the part of the owner. What we want to know is *why* and *how* the land does this! The above argument is precisely like attempting to silence those who criticise the monopoly of money-changers in France, by saying that their right to this position is legitimate and unquestionable because the present incumbents paid for it.

The only valid conclusion that we can draw from this argument is that the landowner (like the holder of any privilege bought with money) has a right if the land is taken from him to the repayment of the price paid. But this is an entirely different question.

Nor has *prescription* (the acquisition of property by immemorial or long-continued and uninterrupted possession), often urged as justifying private property in land, any better validity. In some particular cases, and in order to avoid lawsuits impossible to decide, jurists have determined that long possession properly leads to the *presumption that the title to land has been lost* and may take the place of a legal title. But it would be absurd to make this proposition general and to declare that landed property in general is based on the presumption of legal titles that cannot be shown.

And even if the land were not a direct product of labor, it is (says the optimistic school) at least the product of capital. The value of land and its growing surplus value are sufficiently explained by the improvements made in the land and the expenditure incurred by its owners. It is even said that if we kept account of all the expenditure incurred by the successive owners of the land, we should reach the conclusion that no land is now *worth what it has cost.*[1]

Despite the element of truth which this argument contains, it does not seem to us conclusive. No doubt man and land have ever been bound together by the tie of daily labor, often labor of the severest kind. The biblical prophecy, "In the sweat of thy face shalt thou eat bread," applied to agricultural labor; indeed, the word *labor* itself originally referred to tilling the soil, and the modern French "*labourer*" has the same meaning. But although land is the *instrument* of labor, it is not the *product* of labor. It existed *before* any human labor.[2] There can be no doubt that man, by labor and expenditure, improves and modifies this marvellous instrument of production which nature has provided. In other words, he adapts it better to his purposes; and in this case he evidently confers upon it additional utility and increased value. We must, moreover, recognize that with every advance in the methods of agriculture, the land tends to become more and more a product of labor. For example, in many European countries vegetable gardening is carried on in large marshy tracts, covered with artificial substances that are prepared entirely by the gardener; the value of such tracts is manifestly due largely to labor. But it is always possible, theoretically if not practically, to discover the value of the original soil itself under the successive additions of capital and labor.

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[1] The historian Michelet declared that "man has the best of claims to the land—that of having made it." The physiocrats also based the right of property on the expenditures made to create the farm, and called them "advances on the land."

[2] The school of Bastiat, in order to prove that the value of land is due solely to labor, emphasizes the fact that where land is uncultivated, as in

This original value is most easily perceptible in the forest that has not yet been cleared, and the prairie that is still uncultivated, but that may be sold or rented at a high price. It is plainly visible in the tracts of sandy shore in the French departments of Gard and Hérault which have never

certain parts of America, it possesses no value. This fact is true enough, but the argument based on it does not prove anything. Land situated on the banks of the Amazon is valueless, not because it is uncultivated, but simply because it is situated in a wild and uninhabited section where there are no men to utilize things, and where the very idea of wealth cannot arise.

It is obvious that no land had any value before the first human being appeared upon its surface, and that it will cease to possess any value when the human race has disappeared. (See pages 46 ff.) But the virginity of the land proves nothing in this respect. If we were able, by some magic process, to transport these wild Brazilian tracts to the shores of the Hudson or the Delaware just as they are, they would be worth as much as the oldest farms in New York or Pennsylvania, although the latter have been worked and tilled and cared for by the labor of many generations. Lest the above supposition be found too fantastic, let us suppose a farm anywhere in the country to be surrounded by a wall and entirely abandoned for a hundred years, until every trace of human labor upon it had entirely disappeared. Would any one dare say that in this condition the land would lose all its value, and that no tenant or purchaser could be found for it? It is extremely likely, on the contrary, that even though it were left in this state it would be worth much more in a hundred years than now.

been tilled by man, but which nevertheless made the fortunes of their lucky possessors when it was accidentally discovered that grape-vines planted there are not subject to the phylloxera. It is equally plain in the case of building lots in large cities, — lots over which no plough has ever passed, yet which have a much higher value than the most carefully cultivated farm.

Even in the case of cultivated land, the natural value of the soil is evidenced by the *unequal fertility* of different farms. How often it happens that although two plots of land have been subject to equal labor and expenditure, one may yield large returns every year, while the other scarcely yields enough to cover expenses.

The argument that no land is worth what it has cost is mathematically false, as we shall explain presently. This argument, moreover, does not apply to land for building purposes, because this land is always uncultivated.

It is certain that if we add the value of all the labor and capital expended on a given piece of ground in one of our Eastern states, beginning with the colonial settler who first cleared it, we shall get a total far in excess of the present value of the land. But for our calculation to be complete and correct, it would be necessary also to add all the receipts from the land, beginning with the same date. If we do this, there is no doubt that the balance of such corrected and completed accounts will show that the land has yielded a constantly increasing revenue.

If, then, private property in land seems so hard to defend from the standpoint of abstract justice, why has it existed since time immemorial, and why has it been maintained by the laws of almost all civilized peoples? Simply because it is based upon public utility, — which, indeed, is a sufficiently firm basis.[1] Its origin is due to historical forces which we shall discuss in the following section. These forces gradually did away with primitive communism, and ultimately brought land under the scope of free and individual property, thus making it more nearly like property in movable commodities. They gave rise, with the progress of agriculture and the development of civilization, to the gradual transformation of property and land. These forces were as follows: —

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[1] The important distinction between landed property and other kinds of property is clearly indicated by the Servian Code of Laws in the following clauses: —

(1) The growth of population compelled mankind to practise more "intensive" farming, in order to produce an increasing food-supply.

(2) To stimulate labor it was considered necessary to give the cultivator not only a right to the products of the land, but also to the land itself as the instrument of his labor. This right was at first temporary; but the period of its duration was made longer and longer, as the progress of agriculture required labors of longer duration. Finally, the right of property in land was made perpetual.[1]

Have these considerations, which originally gave rise to private property in land, now lost their validity as a means

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"The right of property in products and movable objects acquired by human exertion is based on the laws of nature."

"The right of property in immovable objects and in the soil, whether cultivated or uncultivated, is confirmed by the constitution of the country and due to civil laws."

But some economists are unwilling to admit any distinction between what is absolutely just and what is socially desirable and convenient. Hence some of them continue trying to justify private property in land by basing it on labor, while others (such as Mr. Léon Walras) give up all attempt to defend it, and advocate the transformation of the individual ownership of land into social property. (See the section on the Nationalization of Land.)

[1] The right to the fruits of the earth carries with it a right to the earth itself, at least for a certain period. The man who has sown the seed must be given time to reap the harvest. The planter of vines must wait six or seven years for his first vintage; half a century must elapse before the acorn becomes a full-grown oak. Moreover, even annual crops, if the methods of farming are at all advanced, require certain labors (such as manuring, improvements of the soil, drainage, and irrigation), which will not pay for themselves in less than ten, twenty, or even fifty years. The man who has

of defence against the attacks of its adversaries? We think not.

With a more or less rapid but nevertheless constant increase of population, it is always important to choose that method of cultivating the soil and that system of ownership

carried on these labors must be given a chance to recoup himself; otherwise he would never have undertaken them.

Yet if property in land be based only on reasons of social utility, the present system has overshot the mark in two respects: —

(1) It would have been sufficient to confine the right of property to the land to which labor has really been applied. This principle, curiously enough, underlies the laws of the Mohammedans regarding property in land, which are more in conformity with the principles of economics than ours. The Mohammedan law confines private property to such land as has been made the object of actual labor, — land that has been irrigated, or drained, or built upon, or planted upon, or tilled, or cleared, or levelled. This land is designated as *living* land, in contradistinction to uncultivated or *dead* land, which remains collective property. "When a man has put life into dead land," says the prophet, "it shall belong to him, and he shall have an exclusive right to it." The application of this principle accounts for the fact that collective property in Algeria and Java, for example, still occupies an important place.

Two-fifths of the area of France (54,000,000 acres) is in a "state of nature," but less than one-third of this land (15,000,000 acres) still belongs to the nation or the communes. All the rest has been brought under private property, on the basis of no other title than occupation.

(2) We may well ask if it was really necessary to make the right of private property *perpetual?* This characteristic far surpasses the exigencies of cultivation. Man, whose lifetime is but a brief span, does not require all eternity for the accomplishment of even the greatest enterprises. The franchises of railroad and canal companies are granted only for terms of ninety-nine years, as a rule. In England, moreover, the laws are such that the possession of most of the land and buildings is limited to a period of ninety-nine years.

Rigorous logic, however, would appear to justify the conclusion that the right of property should last as long as the object to which it applies. And the object in question is perpetual. The earth, in fact, is the only wealth which possesses this quality. Time, the destroyer of all things, — *tempus edax rerum*, — has no effect on the land except to give it a new youth with each returning spring. This argument, however, is a specious one. What lasts forever is the productive power of natural forces, not the transformations effected by labor, even though they be incorporated with the soil. In other words, that which gives most value to the land, — labor, advantageous location, etc., — does not constitute an everlasting part of it.

which, for a given area, will provide food for the largest possible number of persons.[1] We believe that in strict justice society as a whole should own all the land. But society cannot better promote the interests of all than by delegating this right to those who can make the best use of the land.[2] Thus far, individual owners have succeeded in doing this, and, until proof to the contrary is forthcoming, we are justified in thinking that they are the persons to whom this social function may most safely be intrusted.[3]

IV. The Evolution of Property in Land

Not only is private property in land sanctioned by all modern systems of legislation, but it is regarded as the very type of private property. When we speak of a man's property, without using any qualifying term, we are generally understood to mean landed property or real estate.

Yet we may regard it as certain, in spite of numerous controversies which have recently been waged on this subject, that property in land is an institution of relatively recent date, and that its establishment was even a matter of great difficulty.[1]

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[1] In Canada it has been observed that the indigenous races which live by hunting require the enormous area of fifteen square miles per person in order to obtain sufficient food. Below this limit, famine decreases their numbers. But the system of agriculture practised in Western Europe enables the same area to support more than four thousand persons.

[2] After having wavered somewhat, this is the conclusion which Herbert Spencer reached in his book on *Justice*. "While I adhere to the inference originally drawn, that the aggregate of men forming the community are the supreme owners of the land — an inference harmonizing with legal doctrine and daily acted upon in legislation — a fuller consideration of the matter has led me to the conclusion that individual ownership, subject to state-suzerainty should be maintained."

[3] Collectivists assure us that the collective cultivation of the soil would produce far better results than those obtained by individual ownership, because it alone would permit the employment of large-scale methods of production and procure the advantages that ensue therefrom. In this connection, the reader should refer to what has been said of large-scale and small-scale agriculture on page 170.

We may distinguish, in the evolution of landed property, six successive stages which we shall describe briefly.[2]

(1) It is obvious that landed property cannot arise among peoples that live by hunting, or among pastoral races leading a nomadic life. It can arise only with the beginnings of agriculture. And even in the early phases of agricultural life, landed property is not yet instituted. This is due to two circumstances. First, because the land is superabundant and no one feels the need of marking off his share. Secondly, because agricultural methods are still in a primitive state; the farmer leaves one field as soon as it is exhausted, and takes another. The land is cultivated in common, or at least without any effort to attribute separate, well-defined parts of it to particular individuals. It belongs to society as a whole, or rather to the *tribe*. Only the product of the soil belongs to the man or family cultivating it.[3]

(2) Gradually the population becomes more sedentary

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[1] The establishment of absolute private property in land is perhaps the most characteristic feature of Roman law; and yet, even in the early history of Rome, it seems beyond question that individual property applied only to the home and to a narrowly limited area surrounding it.

Among the authors who consider that property was collective at the beginning, we may refer to: De Laveleye, "Primitive Property"; Sir Henry Maine, "Ancient Law"; Paul Lafargue, "The Evolution of Property." The opposite position is upheld by Fustel de Coulanges, "Origin of Property in Land"; Guiraud, "La propriété foncière en Grèce."

[2] The order here given is logical rather than chronological. We must not be understood to mean that in all countries property has gone through each of these stages in precisely the order given. The *dominium ex jure quiritium*, for instance, — a form of free and absolute property, — preceded feudal property in point of time, although logically it was a superior form.

[3] *Arva per annos mutant* (they change their land annually) is a famous phrase used by Tacitus in speaking of the old Germans. The meaning of this phrase has recently been contested, and a new and somewhat paradoxical translation proposed, viz. "They change their rotation of crops yearly." The system of tribal ownership of land is still found in several countries, *e.g.* the *arch* of the indigenous tribes of Algeria.

and more closely attached to the land. It also becomes denser, and is forced to adopt more productive methods of agriculture. Thus the first stage is succeeded by a second, viz. that of temporary possession together with *periodical divisions*. Though the land is still regarded as belonging to society, it is divided equally among all the heads of families. This division, moreover, is temporary, not permanent. First of all, it is only for a period of one year, this space of time being sufficient for the ordinary cycle of agricultural operations. Then, as methods of husbandry improve and cultivators require a longer time for the accomplishment and fruition of their labors, the partition of the land is gradually allowed to last for much longer periods. This system of a periodical division of the land still exists in Russia, and is known as the *mir;* it is even found in several Swiss cantons under the name of *allmend.* The community as a whole (*i.e.* the population of each village), owns the land and distributes it among its members by a periodical division, the frequency of which varies from one commune to another.[1]

(3) There comes a time when these periodical divisions fall into disuse. Skilful farmers who have improved the land do not willingly submit to an arrangement which at certain intervals deprives them, to the profit of the community, of the increase of value due to their labor. Thus arises

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[1] The territory of the commune is divided into three classes. The first includes the land upon which buildings have been erected, together with the gardens around them. This property is hereditary; it may be sold, and is not subject to division. The second includes the arable land, which is divided at certain intervals into portions as equal as possible, according to the number of inhabitants. The third consists of meadow-land and forests, and generally remains undivided both with regard to use and to ownership. The *mir*, an assembly consisting of the heads of the families, has sovereign power in the distribution of shares and the system of cultivation. (For further details consult Kovalewsky, "Le Régime Économique de la Russie.) It is a matter of controversy among Russian economists whether this institution is only a survival, bound soon to disappear (as it has already disappeared in the rest of Europe), or, on the contrary, the precursor of a future form of property.

the institution of *family proprietorship*, each family henceforward being regarded as the permanent owner of its share of land. Yet this is not individual property, for the right of disposal does not exist. The head of the family can neither sell the land, nor give it away, nor bequeath it after his death; for it is regarded as a collective patrimony and not as individual property. This system can now be studied in the family communities of Eastern Europe, especially the *Zadrugas* of Bulgaria and Croatia, which consist of between fifty and sixty persons; they are now rapidly disappearing because of the spirit of independence manifested by the younger members of the family.

(4) The evolution of landed property passes also through a stage which, though accidental, has never been wanting in the history of human societies. I refer to *conquest*. There is probably not a single territory anywhere on the surface of the earth that has not been taken by force at some time or other from the people that occupied it, and been appropriated by the conquering race.[1] The victors, however, in virtue of their position as conquerors and masters did not care to cultivate the land, but merely assumed the legal ownership and "overlordship," leaving the subjected people practically in possession of the soil. Land tenure was more or less akin to actual ownership, but always limited by the terms of an agreement between lord and vassal; "obligations" were imposed upon the latter; dues and services were exacted from him by the lord; and he could not alienate the land or leave it without the lord's permission.[2] For several centuries

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[1] As a proof of the influence which conquest has had upon the evolution of landed property, Herbert Spencer makes the interesting observation that the regions in which the old forms of collective property have been best preserved are precisely those poor and mountainous localities whose situation has enabled them to escape conquest.

[2] Accounts of the system of land-holding under feudalism, the very basis of which was a peculiar system of land-tenure, may be found in the following publications: A. R. Wallace, "Land Nationalization"; S. W. Thackeray, "The Land and the Community"; the article on "Land" in Bliss' *Ency*

this system, known as *feudalism*, was the foundation of the social and political constitution of Europe. There are still traces of it in many countries. Especially in England, almost all landed property is still, in the eyes of the law, held by a limited tenure, and is hedged about by a multitude of restrictions very difficult to remove.[1]

(5) The growth of individualism and of equality before the law, together with the abolition of the feudal system, particularly in those countries which felt the influence of the French Revolution of 1789, led to a fifth stage which marks our own epoch. This is characterized by the final establishment of *free property* in land, with all its attributes. Nevertheless, property in land is not entirely on the same footing as personal or movable property. There are numerous points of difference, familiar to lawyers; but the essential difference consists of additional difficulties connected with the transfer of property in land, or so-called *realty*.[2]

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clopedia of Social Reform; Cunningham, "Growth of English Industry and Commerce," Vol. I; Emerton, "Mediæval Europe."

[1] "Thus was established, in our English law, the cardinal maxim with regard to the possession of lands, viz., that the king is the sole master and the original owner of all the land in the kingdom." (Consult Blackstone's "Commentaries.")

[2] By the English statute of frauds, reënacted by the great majority of our state legislatures, a conveyance of an estate or interest in land (except leases for three years or less) is required to be in writing and signed by the party undertaking the same. As a general rule this conveyance must also be "under seal," although such seal in some of our states may be a mere flourish of the pen.

Again, a wife must join with her husband in signing or acknowledging a deed or mortgage of land, in order that the title may be perfect.

Other instances of the formalities and difficulties trammelling the transfer of land in this country are these: —

As soon as the grantee of real estate obtains a deed or mortgage of it, he must have it recorded by a public official, — generally the county clerk, or register of deeds. In order to entitle it to record, the conveyance must be acknowledged by the grantor before a proper officer, — a notary public, a commissioner of deeds, or the like. Upon the sale of real estate it is customary for the vendor to furnish an "abstract of title" or "search," showing the true condition of the title.

(6) But one more step must be taken in order that landed property shall be precisely like personal property. This step consists in making property in land perfectly mobile or *transferable*, *i.e.* making it possible for any person not only to call the land his own, but to dispose of it as simply and as easily as of any other object of value. This final step has been accomplished in a new country, Australia, by the celebrated Torrens system,[1] which enables the owner of real estate to put his land, so to speak, into his pocket-book in the form of a piece of paper, and to transfer it to some one else as easily as if it were a bank note, or at least a bill of exchange. Efforts have recently been made to introduce this system in the old countries of Europe, and it is probable that the logic of facts and the natural laws of social evolution outlined above will lead to its ultimate acceptance everywhere.

The inference that may be drawn from this rapid review is that property in land has gradually and steadily departed from its original collective form and become increasingly individualistic, thus approaching more and more closely the state of affairs in which private property in land is practically indistinguishable from private property in personal goods and capital.[1]

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[1] This system, named after the man who caused its adoption in New South Wales about fifty years ago, consists essentially of the following features: —

(1) There is a *register* in which each plot of ground has its own page, giving a plan and description of it and containing, as it were, a history of the land since the time when it became private property.

(2) There is a *title-deed*, which is a facsimile sometimes even a photographic reproduction, of the corresponding leaf in the register. When this has been handed over to the owner, it absolutely represents the land itself and may be sold, given for security, etc.

The purpose of this system, as Torrens himself declared, is to rid landed property of all the barriers that prevented free access to it, "like the portcullis, drawbridge and moats which prevented access to the castles of our ancestors." This system, adopted in turn by all the Australasian colonies, as well as in some other English colonies and in Tunis, is under consideration in several countries. Several legislative attempts have been made to introduce it in England. It was adopted in Illinois a number of years ago, but soon declared unconstitutional by the Supreme Court of that state.

V. The Hire of Land

In the United States, agriculture has been carried on chiefly by the proprietors themselves, not by agricultural tenants. There are millions of farms just large enough to employ profitably the labor of the proprietor and his family.[2] The good effects of the system of private land tenure are most conspicuously seen, when, as is here the case, the owner and the occupier of the land are one and the same person. "Under these conditions, land ownership serves at once as a motive to zeal in labor and to liberality in investment. When one man owns the land and another occupies it, the right of the owner to the benefit of all improvements not

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[1] This tendency furnishes presumptive evidence against a future collectivistic organization of society. Yet it is not conclusive evidence, for we have already pointed out several cases of regressive evolution.

[2] The following census statistics show the character of our agricultural tenures.

YEAR	CULTIVATED BY OWNER		RENTED FOR MONEY		RENTED FOR SHARES	
	Total	Per cent	Total	Per cent	Total	Per cent
1900	3,712,408	64.7	751,665	13.1	1,273,299	22.2
1890	3,269,728	71.6	454,659	10.0	840,254	18.4
1880	2,984,306	74.5	322,357	8.0	702,244	17.5

The figures for 1880 and 1890 do not include farms with an area of less than 3 acres which reported the sale of less than $500 worth of products in the census year. On the other hand, many farms were counted twice in those years whenever they were tilled in part by the owner, and rented in part.

Although the relative number of farms cultivated by owners has decreased since 1880, the census authorities call attention to the fact that the farms operated by owners have increased faster since 1850 than the agricultural population. Such an increase can only be possible providing the increase in the number of tenants has been by the elevation of former wage employees to the position of farm tenants. (See Twelfth Census, Vol. V, pages xliii and lxxvii.)

infrequently acts as a discouragement to the occupier and prevents him from laboring with the zeal or the skill which he would otherwise use."[1]

In England, the land is usually owned by some rich man who possesses large estates, but does not care to engage in the active business of farming. The farmer hires the land and its improvements from the proprietor, and stocks it with cattle, carts, improved implements of all kinds, and then employs day-laborers to do the manual work, laboring himself in superintendence, in keeping accounts, buying and selling, etc. The laborer, generally speaking, is nothing but a laborer, and the tenant-farmer is his employer.[2]

Rent, by which we now mean the income which the proprietor of a farm receives for letting it to an entrepreneur, closely resembles the income from labor (called *wages*), and the income from capital (called *interest*). Like wages and interest, rent is agreed upon by contract in advance of the business enterprise in which land, labor, or capital are to be engaged; in consideration of a regular money annuity,[3] the landlord abandons all claim to the products of the farm. But although there is a close legal resemblance, there is in reality a great difference. For in the contract between the laborer and the entrepreneur or employer, the latter occupies the predominant situation, whereas in the contract between the landowner and the entrepreneur known as the tenant, the former undoubtedly has the advantage. History furnishes few instances of employers exploited by their laborers; but it offers innumerable examples of tenants robbed by their landlords. While legislative bodies sometimes feel called upon, on the one hand, to establish a *minimum* rate of wages (as in Belgium), they are also obliged, on the other hand, to fix a *maximum* rental (as in Ireland).

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[1] Hadley, "Economics," page 130. When the farms cultivated by owners are very small, the methods of farming are likely to be primitive, capital is likely to be insufficient, and a few bad seasons may lead to distress and ruin. The disadvantages under which so-called *peasant proprietors* suffer are briefly indicated in Jevons, "Primer of Political Economy," page 89.

[2] Jevons, "Primer of Political Economy."

[3] It must be noted, however, that just as the wage system has been amended by what is known as *profit-sharing*, and the payment of interest transformed into the payment of *dividends*, so also the system of tenantry or leasing land to others is sometimes supplanted by the *metayer* system, which plays an important part in France, Italy, and several other countries. This system, whereby the cultivator gives a share of the product to the proprietor, who generally furnishes the stock and improvements, also prevails to a large extent in the south of the United States. (See the statistics regarding share tenantry on page 606, note 2.)

We have already said that the price actually paid for the use of a farm does not necessarily coincide with economic rent, which is distinct and separate from wages and interest, and due solely to forces that are independent of the landlord's conduct. The price paid for the hire of a farm (for which the French vocabulary has a distinct term, *fermage*), is usually greater than the land-rent. There are usually buildings, roads, fences, drains, and other improvements, of which the landlord is also the owner; in respect of these, he is a capitalist, and the return he receives is interest. Again, the pressure of necessity may oblige the tenant to pay the landlord not only the surplus that is due to natural and social forces, but, in addition to this, a part of the reward of his own labor. Yet it may happen, contrariwise, when tenants are not numerous but in great demand, that the price for hiring farms will be less than the land-rent; in which case the tenant retains for himself a part of the proceeds due to the natural advantages of the land.

The price which the tenant pays for the use of a farm is governed by the same laws as the rate of wages or of interest, *i.e.* by the laws of supply and demand. In new countries, where land is abundant, and where everybody can find vacant land upon which to settle as landlord, tenants usually will not consent to pay more for hiring a farm than the interest on the capital that has been put into it. Wherever, on the other hand, the population is very dense, the land entirely occupied, and the wealth of the nation entirely agricultural — as in Algeria or Ireland — the high rent may leave the tenant barely enough to support life.[1]

The system of tenantry and the income due to it, although sanctioned by venerable custom, must be regarded as incompatible with the best interests of society, for reasons quite different from those which led us to antagonize the wage system. We believe that tenancy is bound to make way for direct cultivation by the owners themselves, either separately or, better still, through partnership or coöperation.

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[1] In Algeria, the tenants called *khammes* retain only one-fifth of the harvest. It is well known that in Ireland the rent of farms has increased to such an extent that part of the population has died of hunger, another part of it has been obliged to emigrate, while those who remain are in permanent insurrection. Since 1881 a series of land laws have been promulgated for the sole purpose of introducing more humane conditions among tenants. The remarkable law of 1903, which will probably mark an epoch in the history of the country, provides that the British government shall assist Irish tenants to purchase their land upon equitable terms.

Where the system of tenantry prevails, as in England, a great deal depends, of course, on the nature of the agreement between the landowner and the farmer. Many English landlords refuse to let their land for long periods. They like to have farmers who are *tenants at will*, and can be turned off their farms at a year's notice, and deprived of the value of all improvements they have made, if they offend the great landowner. Tenants at will have no inducement to improve their farms, because this would tempt the landowner to turn them out or to raise the rent. "There are two modes of remedying the unfortunate state of land tenure in this country," says Professor Jevons, speaking of Great Britain, "namely, (1) By a system of long leases; (2) By tenant right."

"A *lease* is a formal agreement to let land or houses to a tenant for a certain number of years, at a fixed rent and with various conditions which are carefully stated to prevent misunderstanding. When land is taken by a farmer under a lease for thirty years or more, it becomes almost like his own property, because, in the earlier part of his term, he can make great improvements, and yet be sure of getting the value back before the lease comes to an end. In the eastern parts of England and Scotland, where the farms are largest and best managed, these long leases are the usual mode of letting land."

"Another good arrangement is *tenant right*, which consists in giving the tenant a right to claim the value of any unexhausted improvements which he may have made in his farm, if he be turned out of it."

Modern society often so far modifies the principle of private property in land as to introduce *judicial rents* instead of competitive ones; that is to say, the rent is determined by public arbitration between landlord and tenant.

Our first objection to the tenant system is that it undermines private property in land by destroying the validity of the principal argument in favor of that institution. We have pointed out that private property in land does not owe its existence to "natural" or "divine" law, but simply to the recognition that it is the most productive method of cultivating the soil, and the system most conform to the general interest. We have taken it for granted that no one can make better use of the land than the owner himself. But this assumption loses all sense when the owner, by leasing his land to a tenant, shifts the work of cultivation upon some one else and goes off to a large city or a foreign country to live on the income drawn from his estates.

The landlord who, instead of cultivating the soil, uses it simply as an instrument of money-making and a means to live in idleness, is ill suited for the social mission assigned to him. It is difficult to conceive that the land has been distributed to certain men simply in order to furnish them with an income, *fruges consumere nati*, in the same way that kings formerly distributed benefices and prebends among their favorites. The very reasons which seemed sufficient to justify the right of property in land militate against the system of tenantry.

A second complaint against the system is that the separation of the rôles of landowner and farmer, which results from the leasing of land, is disastrous to agriculture. To make the best and fullest use of the land, a man must love the soil and cling to it. But when the land is cultivated by tenants, this love of the soil is necessarily weakened, both in the landlord and the tenant. The former often lives far away from the land and sometimes knows nothing about it;

the latter merely hires it for a while and does not care what ultimately becomes of it.[1]

The arguments presented in favor of the tenant system are these: —

(1) It is uncommon to find a landlord — unless he be an absentee — who has absolutely no interest in the land. The system of tenantry, moreover, constitutes a division of labor in perfect harmony with a satisfactory organization of production. "The landlord," says Professor Leroy-Beaulieu, "stands for the future and perpetual interests of the farm, whereas the tenant considers its present and temporary interests."

But even supposing that the landlord always understands his part perfectly, it is possible that these present and future interests may conflict with each other; hence it would be better that both interests be in care of the same person.

(2) To forbid leasing land to tenants would compel many owners to sell their estates, and would thus exclude from land-holding a number of persons whose age, sex, or profession, or whose obligatory absence or extensive possessions make it impossible for them to cultivate their estates themselves.

This may well be true; but this result constitutes an advantage rather than an evil. If these persons cannot properly perform their function as landowners, let them cease to be landowners! If we want to preserve private property in land, it must become an occupation, a profession, a function, and all economic and legal means must be employed to attain a social condition of affairs in which the function of landowner shall fall only to the lot of those persons who are willing and competent to perform it, *i.e.* to those who will themselves cultivate the land.[1] A function that is so important for the welfare of society must not be "leased" or delegated.

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[1] In certain parts of France, whenever people remark upon the inferiority of crops on certain farms, it is not uncommon to hear the reply, "Oh, one can't expect anything better. That land is only *hire land*."

The *metayer* system is not open to the objections stated above. The customary complaint against it is that it is a system of cultivation suited only for barbarous, comparatively uncivilized peoples, and compatible solely with poor and primitive methods of farming. But this depends on the method of agriculture and on the terms of the contract, which are very elastic. In Tuscany the metayer system has been found perfectly compatible with advanced methods of cultivation. It possesses, over the system of tenantry, the following two advantages: —

(1) It prevents the landlord from losing interest in the cultivation.

(2) It never embarrasses the tenant with regard to paying rent, inasmuch as he pays in goods out of each harvest — when there is one.

In the United States the present favorable condition of affairs is largely due to the fact that millions of settlers have found homes on land obtained from the government by gift or at prices of from $1.25 to $2.50 per acre. Land may be secured through the General Land Office, either by direct purchase or under the homestead laws.[2] Hence, the public-land states of the Central West, built up by settlers upon land purchased or granted out of the "public domain," are composed for the most part of a large number of proprietors, not of separate classes of landlords and tenants. Under the homestead law, "any citizen of the United States, or any person who has declared his intention of becoming such, who is the head of a family, or has attained his majority, or has served in the army or navy in time of war, and is not already the proprietor of more than 160 acres of land in any state or territory, is entitled to enter a quarter section (160 acres), or any less amount of unappropriated public land, and may acquire title thereto by establishing and maintaining residence thereon, and improving and cultivating the land for a period of five years."[1]

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[1] The above statement must not be interpreted as an acceptance of the formula: "The land should belong to small proprietors." Small farming with scant capital is as undesirable as the tenantry system. Small proprietors are usually unprogressive. It is not necessary that the land be held only by those who guide the plough or wield the hoe. Large landowners frequently introduce better methods, which would never have been tried by small proprietors unless the former had proved them to be successful.

[2] Before 1820, the minimum price of land was $2 per acre; the price was then reduced to $1.25. Some lands may still be purchased at that rate, while others are held at $2.50 per acre. The public domain of the United States open to settlement comprised, on July 1, 1902, over five hundred million acres (excluding Alaska and our new insular possessions). These lands are partly situated in the Rocky Mountain and Pacific Coast states and territories; a large share are arid, and probably can never be brought under cultivation.

In France, the law encourages cultivation by the owners themselves and facilitates the formation of small landed estates.[2] These laws, however, have injurious effects when they increase the limitations on the transfer of land belonging to minors, to married women, or to corporations. For in this case it becomes necessary to let the land to tenants, inasmuch as the land is forcibly kept in the hands of persons who cannot cultivate it themselves. Thus, under the pretext of protecting the interests of certain individuals, the welfare of society is jeopardized.

[1] For the fiscal year ended June 30, 1902, the homestead entries amounted to 14,033,246 acres. The sales of public lands for the same period amounted to $5,880,088.65.

The extent to which advantage has been taken of our land laws and homestead laws by the people of the country accounts in no small measure for the facts indicated on page 606, note 2. The following figures from the census of 1900 are also interesting in this connection: —

Families occupying encumbered farms of their own	1,094,573
Families occupying unencumbered " " " "	2,422,678
Total families occupying their own farms	3,517,251
Families occupying hired farms	2,013,903
Total families occupying farms	5,531,154

[2] About one-third of the farms of France — 36 per cent — are under the régime of tenantry, 12 per cent under the metayer system, and 52 per cent cultivated by the owners themselves. This is a favorable state of affairs. There are few countries, except new ones and colonies, in which the system of tenantry occupies so small a place. In Great Britain, for example, the conditions of tenure are radically different, for there ten-elevenths of the land (according to Mulhall) belong to one two-hundredths part of the population.

VI. Plans for Nationalizing the Land

The classical economists themselves grasped the nature and essential consequences of private property in land. They pointed out that it is a sort of monopoly, justified by present custom, but hardly defensible on grounds of social justice. Naturally, therefore, social reformers have long sought to bring actual conditions into better harmony with our ideals of justice. Not only full-fledged socialists, but economists and philosophers having little sympathy with socialism, and even liberals and individualists, have either condemned individual property in land, or at least admitted the desirability of some kind of social co-proprietorship as a corrective of its disadvantages. They have, in other words, suggested an extension of what is known as the government's "right of eminent domain," and proposed methods for reforming, in the interests of society as a whole, the institution of property in land.[1]

The most important plans for reform may be summarized as follows: —

(1) The perpetuity of property rights in land should be *suppressed*, and a system of leases substituted for it. The government should buy the land and lease it to individuals for culti-

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[1] We cannot here discuss the agrarian socialism of antiquity, despite its importance, nor devote any space to an account of the rise of land nationalization schemes in the various countries of Europe. The names most closely associated with this movement are as follows: In Belgium, Colins and de Laveleye; in Switzerland, Léon Walras and Charles Secrétan; in France, Renouvier and Fouillée; in Germany, H. H. Gossen and M. Flürscheim.

In England, the theory of land nationalization goes back at least as far as Thomas Spence, who in 1775 advocated the "parochializing" of land "so that there shall be no more nor other landlords than the parishes." The most eminent of recent land nationalizers are A. R. Wallace, the naturalist, and a school of Christian socialists who teach categorically that private property in land is illegitimate. ("All the earth is mine," said the Lord.) Herbert Spencer, an extreme individualist, expressly condemned landed property in his earlier works, but subsequently changed his views somewhat.

vation during periods of fifty, seventy, or even ninety-nine years, in much the same manner that it grants franchises to railroad companies. When this time had elapsed, the government would again acquire possession of the land, just as the French government will acquire the ownership of French railroads in 1950. Then the government could lease the land for a new period, requiring the lessees to pay, either in a lump sum or in annual rent, the surplus value or unearned increment of the land. In this way the government or the "State," representing society as a whole, would receive all the unearned increment, and collect an enormous revenue that would ultimately permit the abolition of all taxes.

Although Leroy-Beaulieu asserts the contrary, such a system would not be incompatible with good husbandry; the greatest undertakings of modern times — such as railroads, the Suez Canal, etc. — have been carried on under this system. Precautions should, of course, be taken to renew leases a sufficient time before they expire. It must be conceded that this arrangement would be more likely to promote good husbandry than the system (now prevailing in many countries) under which almost all the land is cultivated by poor tenants who may be sent away at the caprice of the landowner.

But the execution of this project would at the very outset encounter an insurmountable obstacle, inasmuch as justice would require that the land be bought from its present owners at an equitable price; and this would be absolutely ruinous. The present value of land in this country is probably more than thirty billion dollars, *i.e.* about fifteen times the total national debt of the United States. This amount would have to be borrowed to indemnify the landowners.[1]

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[1] A few years ago we suggested, as a practicable scheme, that the government purchase the lands by paying for them immediately, but not require their actual transfer until ninety-nine years afterward. Under these circumstances, land could be bought at low prices; for the proprietor would compare, on the one hand, the relinquishment of his property at a time so far distant

(2) A second system, advocated by the elder and the younger Mill, and perhaps even by the Physiocrats, has acquired widespread celebrity since its advocacy by Henry George,[1] an American, under the name of *single tax system*. It consists simply in levying an increasing tax on land values, the increase being so adjusted as to "absorb the whole economic rent, or what is sometimes styled the unearned increment of land values."[2] Mr. George, who must not be called a social-

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that neither he nor even his grandchildren would suffer from it, and on the other hand, the sum of money that might be had immediately. Under these circumstances, he would hardly hesitate to accept a very low price.

The amounts to be offered can be calculated by means of annuity tables: $1000 to be paid in a hundred years, *i.e.* in 2003, at the rate of 5 per cent would now be worth $7.98. Thus $30,000,000,000, — taking this to be the value of the land in the United States, — deliverable in 100 years, are theoretically worth about $240,000,000, paid now in cash.

Professor Leroy-Beaulieu, while designating this system of purchase as "perhaps the most ingenious" of all that have been proposed, rejects it as impracticable. We will admit that a social reform for which we must wait a hundred years is not worth much. The rate of capitalization, moreover, has changed since the above plan was proposed, and the whole calculation must be greatly modified. At the present customary interest-rate of 3 per cent, many more million dollars would have to be paid now as a mathematical equivalent of thirty billions payable one hundred years hence.

[1] George's book, "Progress and Poverty," finished in 1879, has been translated into several foreign languages and has aroused considerable comment in nearly all the nations of Western Europe.

[2] It is plain that the two "systems" summarized by Professor Gide resemble each other very closely. The difference between them lies mainly in the fact that Mr. George proposes to gradually "tax the rent," while the first system proposes gradually to "take the land." The first system is in no wise incompatible with the taxation of land values, but it lays most stress upon the actual acquisition of the land by public authorities. Mr. George's system would "tax the landlord out of existence," and is opposed to indemnification. The first system seems to coincide with that of the English "Land Nationalization Society," which proposes to pay for the land. The second system, on the other hand, appears identical with that of the English "Land Restoration League," now called the "League for the Taxation of Land Values." This league opposes every proposal for "land purchase" or "for creating a new class of landlords under the name of peasant proprietors." It should be noted, however, that John Stuart Mill contemplated the full compensation of the existing body of landowners.

ist, for he accepts the institution of private property, holds that the economic rent of land is due entirely to the growth of population, which increases the demand for products of the land, and raises rents; he holds that a "single tax," — equal to the rental value of all land, apart from improvements, — would yield more than enough to support the government and would make all other taxation unnecessary.[1]

The great practical objection to this plan is that there are usually two elements in the increased value of land: one arises from various social and impersonal causes; but the other is due to the labor of the landowner, or at least to the capital that he has advanced. In establishing such a tax we should have to be careful not to touch this second element — not only for fear of violating the principles of equity, but also for fear of discouraging all spirit of enterprise and all progress in agriculture, which even now is too much subject to routine. The separation of these two elements, however, is practically impossible; the landowner himself could not do it accurately, nor would a public officer be better able to do it.

Note, moreover, that if society profits by all gains in the value of land, on the ground that they are due to no exertion or sacrifice on the part of the owner, it is in equity bound to make good all losses arising from the decreased value due to social causes over which he has no control, — and this for precisely the same reasons.[2]

Finally, we must raise the same objection as that urged against the first system. The confiscation of rent by taxation would have the same effect as the confiscation of the land itself. It would destroy the value of land as such and give rise to the necessity for paying an indemnity to the present holders, although Henry George expressly denies this. The ensuing financial difficulties would be much like those already pointed out.[1]

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[1] Space does not permit a detailed examination here of the single tax system proposed by Mr. George. We refer the reader to "Progress and Poverty," and to the following literature: Bliss, "Encyclopædia of Social Reform" (articles on Land, Land Nationalization and Single Tax); Walker, "Political Economy"; Bullock, "Political Economy"; Bastable, "Public Finance"; Plehn, "Public Finance"; Ely, "Taxation"; Seligman, "Essays in Taxation." These books contain a discussion of the economic, ethical, practical, and financial aspects of the scheme.

[2] As Francis Walker put it: "'Heads I win, tails you lose,' is not a game at which the state can, in decency or fairness, play with its citizens."

While it must be admitted that the unqualified ownership of land enables the land-holding class to reap an unearned benefit at the expense of the community, yet, for the reasons given above, we regard land nationalization as impracticable in so far as it concerns property already established. But our objections are not entirely valid with regard to future property, that is to say, the right to cultivate new lands. In most new countries and colonies, there is still a large public domain which is rapidly being cut down by enormous grants of land, or sales made at very low prices by the government. We believe that the government could easily have retained the proprietorship of this soil, and merely granted leases to individual cultivators. In this way the government could have retained control of property that will ultimately become very valuable, thus making it much easier, perhaps, for future generations to solve the social problem.[2] But the evil effects of private property in land are least felt in those very countries in which it would be an exceedingly simple matter to prevent them. In fact, private property in land has innumerable advantages and no disadvantages in a new country still in the early stages of its economic development, — such as the Argentine Republic or Australia. In these countries, landed property is confined to areas that have been cleared, and spreads only with the spread of cultivation; hence this property is hallowed, as it were, by labor. The soil under private ownership, moreover, represents but a fraction of the whole soil, and land is still superabundant; therefore, land and agriculture, like any other commodity or occupation, are subject to the law of competition and do not constitute monopolies.

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[1] Many of the present possessors of the land having paid the full price in good faith, it would, as Francis Walker declares, be simple robbery for the state to reassert its interest in the land without fully indemnifying the owners. If the present system is changed, why should the burden be thrown upon the single class of landowners?

[2] Refer to the note on page 600. The Dutch government has followed this plan with its vast colonial possessions. It has not *sold* the land, but leased it for periods of about 75 years. In Australia a league that was formed for the purpose of introducing the same system there did not meet with success. The principle of national ownership has been adopted in a somewhat platonic form by New Zealand, the government of which leases the land for a period of 999 years.

Even in old countries this plan could be applied in the case of mines. The ownership of mines is distinct and different, economically and legally, from property in land.

With the development of society, however, and as the population becomes denser, the character of landed property begins to change and gradually acquires the nature of a monopoly; this monopolistic nature, moreover, continually becomes more pronounced. And when this stage is reached, it is too late to buy back the land.[1]

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[1] It is not a mere coincidence that Henry George's theories have found so wide an acceptance in Great Britain, where there is now no general customary access to portions of the soil for the great mass of the people, and where the great majority of the population, in Ireland as well as England and Scotland, depend on a few landowners both for a dwelling-place and for an opportunity to carry on any kind of production. According to an unsigned article on Land in Bliss's "Encyclopædia of Social Reform," "in England only one person in twenty is an owner of land; in Scotland, one in twenty-five; in Ireland, one in seventy-nine; and the great majority of landholders in Great Britain own less than one acre each."

Nor is it a simple coincidence that the greatest American advocate of the single tax made most of his observations in San Francisco, at a time when the number and wealth of the population was increasing at a marvellous rate, and many fortunes were made by the sale of unimproved land, the value of which increased enormously in a very brief space of time. It is in large cities, and especially in rapidly growing cities in new countries, that the unearned increment of land is most striking. Take an example of this: Mr. F. R. Chandler, a Chicago Real Estate Agent, found that a quarter acre of raw prairie land now at the intersection of two prominent business streets in that city, which, in 1830, was worth $20, or the equivalent of 13½ days' labor at $1.50 a day, in 1894 was worth $1,250,000, or the equivalent of 2777 years' labor.

VII. The Subdivision of Property in Land

Social evolution, by which property in land tends ever more closely to resemble property in capital or commodities (see page 605), naturally diminishes the evils of the individual ownership of land.

It facilitates, on the one hand, the *division* of land, thus distributing the land among a large number of persons. And what danger, we are led to ask, can there be in a monopoly when millions of men, including a majority of the citizens (as in the United States and France) share in it?

It facilitates, on the other hand, the *transferability* of land, that is to say its rapid and frequent change of ownership, thus depriving the unearned value of the land of the character of a perpetual and increasing advantage. The increase of unearned value, being as a rule very slow and intermittent, produces scarcely perceptible effects during the short time that the property is in the possession of the same person; it is, moreover, taken into account whenever the land changes owners.

The forces which bring about these two results are primarily economic. But legislative bodies are certainly able to exert great influence by adopting measures for either favoring them or counteracting them, as the case may be.

In old countries, where land is scarce, the establishment of a protectionist system, for example, would manifestly tend to aggravate the monopolistic character of land-ownership, whereas free trade would impair it by admitting the competition of foreign soils.

Again, the laws of inheritance are potent factors for good or evil in this respect. In England, for instance, the legislature, prompted by a desire to maintain the position of the aristocracy, which has helped make the nation great, has established a number of "rights" which make it well-nigh impossible to alienate the land, and which thus keep the land almost by force in the constant possession of the same family. In addition to countless expenditures and formalities attending the transfer of land, there is the "right of primogeniture," the "right of entail," the "right of substitution," etc. By the first of these "rights," the eldest son inherits the real estate of an intestate person, in exclusion of the younger sons and all the daughters; by the second, the inheritance of an estate is limited to a particular class of persons and its sale prohibited; by the third a series or succession of heirs is established, from which the law allows no deviation. Because of such devices as these landed property nowhere appears more odious than in Great Britain.[1] Marked by the original and indelible stain of confiscations following the Norman conquest and the mastery of Ireland, and the wholesale usurpation carried on in the fifteenth and sixteenth centuries, when the common lands came into the possession of the landlords (by so-called "enclosure"), Great Britain offers the scandalous spectacle of colossal fortunes obtained without exertion and increasing with the growing number and wants of the disinherited masses.

The right of primogeniture has long passed away in the United States, and almost all the states of the Union narrowly limit the power of entailment. Throughout continental Europe, moreover, these and similar privileges have been curtailed or abolished. In France, for example, since the Revolution of 1789, the law requires that estates shall be *divided equally* among all the children of deceased parents, or, in the absence of children, among the other relatives.[2]

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[1] There are 1,200,000 landowners in the United Kingdom, but the immense majority of them, at least three-fourths, own insignificant plots of less than an acre; just enough for a cottage and garden. A more accurate idea of the distribution of land may be obtained from these facts, together with the data given on page 613, note 2: Half of England and Wales is owned by 4500 persons, half of Ireland by 744 persons, and half of Scotland by only 70 persons.

[2] Article 826 of the French Civil Code decrees not only that an estate shall be divided into parts having *equal values*, but that the estate itself shall actu-

This has had quite as pronounced an effect on the distribution of land as the English system, but in precisely the opposite direction. It has resulted in cutting up the land into small sections.[1] Unfortunately this system does not only cut up the large estates, but it also divides the small ones into fragments, and thus carries the partition of estates far beyond the limits compatible with good husbandry. It jeopardizes the interests of agriculture without accomplishing anything in the interests of democracy. It even violates the aim which it has in view, for after the division of estates, or when estates are sold to share the proceeds, small heritages are often purchased at ridiculously low prices by the owners of large estates.

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ally be divided into *equal parts*. That is to say, the smallest plot of ground and the humblest cottage must be divided. If the heirs cannot arrange matters among themselves, the estate must be sold by the authorities, at considerable expense to the heirs.

[1] According to the agricultural statistics for 1892, persons engaged in agriculture in France were classified as follows:—

Owners managing their own farms . . .	2,199,220 or 33%
Farm-hands, servants, and day-laborers working for an employer	3,275,890 or 49%
Persons working part of the time for themselves and part as day-laborers or farm-hands for others	1,188,025 or 18%

The first and the third classes comprise independent cultivators, *i.e.* those who cultivate their own farm or who have charge of its cultivation. The total number is 3,387,000, which, when we add their families, means a population of 12,000,000 persons, or a little more than half the agricultural population. (Compare the figures for the United States, page 606, note 2, and page 613, note 1.)

CHAPTER IV — PROFITS

I. The Nature and Definition of Profits

We have already had occasion to speak of the important person whom economists call the *entrepreneur* (the projector and manager of an enterprise), and we know that his income is called *profits*. But it is difficult to define the exact nature of his function and of his income. We may distinguish the following three explanations, or theories, of the part played by the entrepreneur and of the essential nature of profits: —

(1) English economists have usually regarded the entrepreneur and the capitalist as identical, and have designated both by the latter name. They have therefore regarded profits as a *capitalistic income*, analogous to interest, but fixed at a somewhat higher level for reasons which we shall state presently.

It must be admitted that this way of looking at things seems quite in conformity with facts. In practice, it is the entrepreneur who possesses all, or at least part, of the capital necessary for carrying on a business enterprise. In practice, the rate of profit goes hand in hand with the rate of interest and is calculated in the same way, viz. as a certain "per cent" of the capital employed. It is considered natural that the entrepreneur who has "put into" an enterprise $1,000,000 should realize ten times as much profit as an entrepreneur who has employed only $100,000.

This interpretation, however, must be abandoned, for although the entrepreneur is generally also a capitalist, this is not so because of any necessary connection between their functions; but, as we shall see, only because capital confers on its possessor a kind of monopoly. The part of the entrepreneur and that of the capitalist are nevertheless distinct in theory and sometimes separate in practice; for there are entrepreneurs who are not capitalists and who carry on business only by means of borrowed capital.

(2) French economists, on the other hand, and first of all J. B. Say, clearly separated the part of the entrepreneur from that of the capitalist, and regarded the former as economically distinct from the latter; they invented the name by which he is now known. In their opinion, the predominant characteristic of the entrepreneur is the performance of a certain kind of labor. Profits, therefore, are the *remuneration of labor;* but of a particular kind of labor, different from manual labor, superior to it from the standpoint of productivity, and consisting of the following elements: —

(*a*) *Invention*, which, as we have seen, is the primordial act of production (page 74). All great industrial fortunes are the result of inventions (Bessemer steel, Singer sewing-machines, etc.). The truly productive act is *thought*, the conception of *ideas*. The entrepreneur must have ideas, — not necessarily sparks of genius, but business ideas, — and, above all, he must discover what will please the public. It is not enough for the entrepreneur to invent new commodities or new varieties of commodities; he must, so to speak, invent new wants.

(*b*) *Superintendence*. It is a fundamental law of political economy that collective labor is more productive than isolated labor, on condition, however, that it be organized, disciplined, and commanded by some one. There must be somebody to divide the work and give every laborer his proper place. This is the part of the entrepreneur, and for this reason he is called the "captain of industry." Business, in fact, is very much like war. The commander-in-chief wins or loses the battle. No doubt good soldiers and good weapons contribute to the victory, but they are the conditions of success, not the real cause. One proof of this consists in the fact that good troops with the best equipment will be beaten if they are badly commanded. In business matters, too, generalship is everything. Everyday experience shows that of two enterprises employing an equal number of workmen possessing the same ability, one succeeds and the other fails miserably, simply because one has better leadership.

(c) *Commercial speculation.* It is no difficult matter to produce goods. The great problem is to sell them, — to find a market for what has been produced. Hence, business enterprises now tend more and more to become speculative in character. In other words, business consists to an increasing degree of the art of buying and selling on the most favorable terms. This art is one of the principal accomplishments of the successful entrepreneur. It is, moreover, of the greatest social importance, inasmuch as commercial speculation reëstablishes the economic equilibrium constantly disturbed by production and consumption.

There is much truth in this second explanation also. Nevertheless, it does not set forth clearly the essential nature of profits, nor does it entirely escape the suspicion that it was devised, at least in part, for the purpose of defending profits against the attacks of socialists. Every one of the tasks above enumerated as belonging to the entrepreneur — invention, commercial speculation, and even superintendence — may be committed to the exclusive charge of hired employees (engineers, chemists, buyers, commercial agents, managers, superintendents, etc.). And, as a matter of fact, all large enterprises organized as "companies" employ men to perform the several tasks of the so-called entrepreneur.

(3) A great many economists, finally, consider the entrepreneur as possessing a monopoly, somewhat like that of the landowner, yet differing from it in some important respects. Profits, therefore, are a *monopolistic income* or so-called "monopoly surplus."[1] This monopoly may be a natural one, resulting from exceptional personal abilities or from certain

advantages of situation or opportunity. Or it may, on the other hand, be a legal monopoly, and be due, for example, to a protective tariff, or to the exclusive possession of certain inventions. It may be due to any of a host of circumstances, for monopolies are by no means exceptional. The monopoly element is present everywhere. The small grocery store at the street corner enjoys a monopoly because of its location. A man's individuality, that is to say the simple fact that he is himself and not some one else, really constitutes a monopoly.

This theory is most consistent with facts. It explains, moreover, why the entrepreneur generally happens to be also a capitalist. As no business can be undertaken without a certain amount of capital, and the necessary capital must often be borrowed, the possession of capital really constitutes a monopoly that can be made to provide a revenue for the owner. It also explains why exceptional personal qualities, such as those pointed out by the partisans of the theory that profit is due to labor, may be the source of large profits and of great wealth — simply because these qualities also constitute monopolies.

We must not conclude that profits are necessarily unjust; we have, in fact, already admitted that in many cases monopoly is more in conformity with the public interest than competition. (See page 152, etc.)

Those who become wealthy because of exceptional personal ability do no harm to others. Again, the monopoly of entrepreneurs consists not in their being able to sell goods *above* the current prices, but in the possession of a secret or of some advantage which enables them to make goods at *less* than the ordinary cost of production; and decreased cost is in perfect harmony with public welfare.[1]

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[1] At all events, it should be noted that whenever there is any injustice on the part of entrepreneurs, the consumer, *i.e.* the purchaser of the goods, is usually the victim of the monopoly, rather than the workmen engaged in the enterprise.

II. The Laws which determine Profits

How are profits calculated? Nothing would seem to be easier. The manager or owner of the smallest enterprise knows perfectly well how to find out what his profits are. He simply subtracts the cost of production from the value of the finished product (*i.e.* its current price in the market), and calls the remainder his profit.

Yet this apparently simple operation involves one of the difficult points of theoretical economics. The difficulty consists in determining precisely what should be included under the "cost of production."

It should include, first,—there is no difficulty on this score,—the *wages* paid by the entrepreneur to the laborers in his employ; it should also include, in case he has borrowed all or part of the capital, the *interest* he must pay to the capitalist. These are the two essential parts of the cost of production. If we let V represent the value of the finished product, W the wages, and I the interest, then P, the profit, would be determined by this simple formula:—

$$P = V - (W + I).$$

But are not several elements missing from this formula? Why does it not include rent, as well as interest and wages? The entrepreneur is supposed, theoretically, to unite the

Profit differs from land-rent for two reasons:—

(1) Because the monopoly due to land-rent always possesses a real, impersonal, and more or less permanent character, while profit is of a personal and temporary nature.

(2) Because land-rent arises either (as Ricardo thought) from the increase in the cost of production, or (what is more strictly true) from the increase of human wants; whereas profit, as we have just said, is generally due to a decreased cost of production in certain industries or establishments.

Although the *maximum* cost of production alone governs the rent of land, the *minimum* cost of production sooner or later regulates the rate of profit, because the monopolist will ultimately be ousted from his privileged position by other entrepreneurs, and because, moreover, it is in his own interest to lower prices. (See page 589, note 1.)

factors of production, which include not only labor and capital, but land also. In practice, moreover, he often has to rent land. Why, then, does the "cost of production" not include the expense of obtaining the third factor of production, as well as the cost of the other two?

Economists of the English school answer, — basing their reply on Ricardo's theory — that the rent of land is never a part of the cost of production, because it is the cost of production which *determines* rent. (See page 587.) But this doctrine is too absolute. In all cases where rent is the price of a genuine monopoly, such as buildings and land situated in cities or near a waterfall serviceable for productive purposes, it is certainly part of the cost; and if the entrepreneur is obliged to pay rent for such truly monopolistic advantages, this rent should be counted as part of the cost of production, in addition to wages and interest. In brief, the entrepreneur should deduct from the value of the product the shares due to all his collaborators. Nothing could be plainer than this.[1]

But the entrepreneur generally furnishes something himself, — perhaps the land and buildings, perhaps all or a part of the capital, and, in any case, the labor of a certain amount of organization and superintendence. Should not the rent of this land, the interest on this capital, and the wages for this labor also be reckoned as part of the cost of production? What does it matter that these elements happen to be furnished by the entrepreneur personally, and that he has no need to employ or borrow them? Is he not a landlord or capitalist or wage-earner if he furnishes land or capital or labor? If he had not applied this land, capital, or labor to his own business, he could have used them elsewhere; he might have rented his land and buildings to a tenant, invested his capital in some one else's business, and applied his labor and intelligence in some other enterprise. His own business ought therefore to yield at least enough to pay him the equivalent of what he could have received in any other way, else he will not engage his land, capital, labor, or intelligence in this enterprise.[1]

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[1] It follows from the above that for the entrepreneurs the cost of production consists of the incomes received by their collaborators in production, that is to say, the incomes of the other classes of society: wage-workers, landowners, and capitalists. Must these incomes be counted as the cost of production for the *nation as a whole?* Certainly not. For the nation, the cost of production is different from that of the entrepreneur. The cost of production for the *nation* consists of the sum total of values *consumed* (*i.e.* destroyed) in the process of production, — the value of the circulating capital and only the cost of renewing fixed capital, — and profit consists of the difference between the values produced and the values consumed.

But how are we to ascertain the value of the various productive elements furnished by the entrepreneur personally?

As for land and buildings, nothing could be more simple. Find out what the entrepreneur would have been obliged to pay to obtain similar land and buildings from another landlord.

As for the capital, the matter is equally simple. Find out the current rate of interest, — that which the entrepreneur would be compelled to pay for borrowed capital, and what he probably does pay for capital that he actually borrows. As a matter of fact, in every accurate system of accounts the entrepreneur distinguishes the interest on his capital from the other receipts of an enterprise. This interest, however, should be estimated at a higher rate than the current rate of interest, because the return from capital engaged in direct, active production is variable, whereas the income arising from loaned capital is fixed.

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[1] Yet if we examine closely the enterprises that are carried on in any country, it would certainly not be difficult to find some that do not yield enough to pay the current rate of interest on the capital engaged in them. Why, in spite of this, are they still carried on?

This apparent anomaly is easily explained when we examine into the nature of the capital engaged in these businesses. If it consists largely of *fixed* capital, it is next to impossible to transfer this capital to some other business, even should the owner desire to do so. The only thing to be done, therefore, is: either to abandon this capital entirely and count it as just so much wasted wealth, or be content with whatever return it happens to yield, no matter how small. The second alternative is clearly preferable; for it is better to lose part of one's capital than lose it all. This state of affairs occurs frequently with railroad companies, traction companies, mines, etc.

Take, for illustration, a business which yields returns so variable that every other year there are no profits. Should the current rate of interest on loans be *five* per cent, the entrepreneur's return on his own capital must be *ten* per cent, in order to produce an income averaging as high as that due to the loan of capital at the current rate of interest. This difference in rates is a premium for *insurance against risks*.[1]

The problem is a more difficult one with regard to the personal labor of the entrepreneur. What compensation ought he to receive? Economists answer that he should receive the same compensation as that which he would be obliged to pay an employee able to take his place (*i.e.* a manager or director), or whatever he himself could expect to receive if his services were engaged by another employer. This remuneration is, doubtless, fixed very arbitrarily. Many entrepreneurs, however, keep an account of the salary which they attribute to their own services, and enter this item on their books as part of their expenses.[2]

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[1] This "insurance premium" against the entrepreneur's risks must not be confounded with the "premium" referred to as constituting part of the interest for capital as commonly understood (page 567). The latter concerns the *possible loss* of loaned capital, while the former has to do only with the *variability* of the entrepreneur's income. This premium plays no part in the case of the capitalist who invests in *all* the industrial enterprises of a nation, or in all the enterprises engaged in any one branch of production, such as coal-mining. Careful capitalists do not "put all their eggs into one basket."

[2] There can be no doubt that the salary which the employer will regard as a sufficient payment for his own services will be larger than that which he would pay to an employee of equal ability. It will even be greater than that which he could expect to receive if he were in the employ of another entrepreneur. This is natural and just; for we must take into account the responsibilities, the anxieties, and risks of the entrepreneur's occupation. We do not now refer to the danger of losing his capital (which has already been taken into account), but the risk of losing his economic position and his

These, then, are nearly all the elements in the cost of production.[1] All we have to do now is to add them, and deduct the total from the value of the product; what remains is *profit.* But when we have taken into account all the elements enumerated above, and deducted them from the gross results of an enterprise, it is not at all improbable — however surprising this may appear — that there will be *nothing left.*

There will be a remainder only when the value of the finished product exceeds the total cost of production, and this is possible only when the entrepreneur is in possession of some sort of monopoly. (See page 194, note.) But if there is no monopoly-element, if industry is entirely subject to free and full competition, — that is to say, if the entrepreneur brings nothing on the market except what anybody

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business reputation. If a man could not earn more as an entrepreneur than as manager or superintendent for some one else, it would be better for him to enter some one's else employ; he would at least gain peace of mind by the change. As a matter of fact, many persons offer their business intelligence and organizing abilities to others, rather than undergo the constant worry and mental strain involved in carrying on their own business under a system of keen competition and frequent industrial collapses against which even the wisest and most far-sighted men are unable always to make ample provision.

[1] Should not the cost of the *raw materials* and the cost of *transportation* occupy an important place in a list of the expenses of production? From the standpoint of the individual entrepreneur, they must be counted. But when we are attempting to determine profits in general, *i.e.* for all enterprises, they must be omitted, because the cost of raw materials is in turn made up of wages, interest, and the returns of the preceding entrepreneur; this entrepreneur's raw materials are in turn made up of the same elements, and so on until we reach the first links in the chain of productive activities.

If our calculation of the costs of production is to be perfectly correct and complete, however, there are other elements which must be included, *e.g.* the cost of *renewing* capital which exists in the form of concrete goods, and *taxes* paid to the government, which may be regarded as an indirect collaborator in production who insists on receiving a share of the proceeds. The cost of renewing capital plays no part in the case of money-capital which is a kind of wealth neither perishable nor subject to wear and tear (See page 572, note 3.)

else can offer, — there is no profit. This fact need cause no surprise. It is a necessary consequence as well as a confirmation of the definition of profits given in the preceding section. It is, moreover, both inevitable and just.

It is, first, inevitable. For if competition among entrepreneurs is free and complete, they will always engage in those enterprises which hold out the inducement of a profit. Competition among entrepreneurs will tend to keep the value of products exactly on a level with their cost of production. (See page 139.)

It is, in the second place, just. For when the entrepreneur has received — above and beyond the parts of the product which he is obliged to give to his collaborators in production — the interest on his own capital, an indemnity for all the risks he has incurred, and an equitable compensation for his labor of superintendence, what more can he properly claim?[1]

III. The Legitimacy of Profits

In more than one sense, the entrepreneur plays a leading part in modern industrial life. For this reason he is the principal target of socialistic attacks.

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[1] Professor Walras employs a formula which at first seems astounding when he declares that *the normal rate of profits is zero.* By this statement he means that upon the supposition of absolutely free competition — a hypothesis which serves as the very basis of this author's system of mathematical equations concerning economic forces — the price which the entrepreneur pays for productive services (including his own) must necessarily be equal to the price for which he sells the finished product; profits must therefore be equal to zero.

This amounts to saying that the sole normal income of the entrepreneur is that which he receives as remuneration for his labor or for the use of his capital, and that the surplus (which is generally called profit) is purely *accidental.*

Walras's theory, which at first appears paradoxical, will become plainer if we examine profit in its simplest form — that of *dividends.* Take two capitalists, each of whom has invested the same amount in the same enterprises, the first having purchased only shares of stock, the second only interest-bearing securities. In this case, the theory stated above means simply that in the long run — say fifty years — both of these capitalists will receive

Robert Owen declared nearly a hundred years ago that profit is the fundamental cause of all economic ills, and endeavored to abolish profit by means of a "Labor Exchange,"[1] at which laborers could exchange their products for labor coupons and use these coupons to purchase whatever they wanted, without having anything to do with an entrepreneur and therefore without having to pay him a tribute in the form of profits.

But the socialistic objections to the entrepreneur were more or less vague and indefinite until the publication of Karl Marx's book on Capital. The arguments which this formidable adversary brings to bear against the institution of profits are summarized in the following paragraphs.[2]

The comparison established by some economists between the entrepreneur and the laborer, says Marx, is absurd, or at least out of date. There was a time when the employer worked side by side with his workman, *primus inter pares*, and could properly be considered as a worker and a producer. The same condition of affairs may even now be found, by way of exception, in small scale industries. But under the

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exactly the same total income, despite the fact that one receives only interest and the other only dividends. This conclusion, we believe, will be accepted as true by experienced business men.

It is even possible that when all is taken into account, the income consisting of dividends will be smaller than that in the form of interest, because men are usually disposed to overestimate the chances of success in an enterprise, and to underestimate the possibilities of failure.

[1] Owen's Labor Exchange must not be confounded with De Molinari's scheme of a kind of bureau where workers may obtain information regarding the demand and supply for various kinds of labor, although the latter scheme is also known as a labor exchange (*Bourse de Travail*). (See page 535, note 1.)

[2] We have already pointed out, in connection with our discussion of the legitimacy of interest, that the so-called scientific socialists (Rodbertus, Marx, Lasselle, etc.) regarded the incomes of landlords, capitalists, and entrepreneurs as essentially of the same nature; each of them is held to be due to the spoliation of the working classes. The essential features of the "exploitation theory" are the same with regard to profits as with regard to interest. (See page 560.)

system of large-scale production, — manifestly the sole productive method of the future, — the employer is exclusively a capitalist. He happens to be an employer simply because he is rich, just as under the *ancien régime* in Europe certain men became army officers simply because they belonged to the nobility. The employer derives profit from his capital just as any other merchant does, *i.e.* by buying and selling goods. What does he buy? The productive power of the workman, known as labor. What does he sell? The same power transformed and made concrete in the shape of commodities. The difference between the two constitutes his profit.

But how, according to Marx's theory, can there be any such difference or profit-constituting surplus? For we must not forget that, according to Karl Marx, the sole value-producing factor is labor. Does it not follow that the finished product cannot be worth more on the market than the labor of the workmen who made it, and that therefore profit cannot arise? The solution of this knotty problem, this "mystery of iniquity," constitutes, in the opinion of many socialists, Marx's chief claim to scientific glory. Let us listen to the socialistic argument.

The value of products offered for sale by the entrepreneur is determined by the labor which it cost to produce them. Suppose a workman takes ten hours to produce a given article: the value of that article is equal to ten hours of labor. But it does not follow that the entrepreneur must pay the workman a wage equivalent to ten hours' labor. He pays the workman just *what his labor is worth.* And the worth of his labor, like the value of a machine or any other commodity, is determined by the cost of production. When we have to do with the productive machine called "man," producing the commodity called "labor," the cost of production means simply the expense necessary to raise (*i.e.* to *produce*) *a workman* and to keep him fit for work (*i.e.* to *support* him). Let us assume that the expenditure necessary to support the laborer and to keep him in fit condition is equal to five hours' labor a day, on the average. In this case the employer, by giving the laborer wages equivalent to five hours' labor, pays him *just what his labor is worth*, according to the laws of value and exchange. Yet it is evident that the employer thus makes a large gain. He pays only the equivalent of five hours' labor, and by the sale of the product he realizes the equivalent of ten hours' labor. Hence he gets five hours' labor without paying for it — five hours' labor which the workman furnishes gratuitously for the benefit of his employer. The employer's profit, therefore, is *a certain amount of unpaid labor*. This is the whole secret of capitalistic exploitation.

Is the objection raised that the above figures are arbitrary suppositions? To be sure they are. But, says Marx, there is nothing arbitrary or imaginary in the general rule that *the value produced by a man's labor is greater than the value required to support him*. This is true even of the isolated laborer in primitive society; else civilization could never have begun, nor could population ever have increased. How much truer, therefore, it must be with regard to the civilized laborer whose productive power is multiplied by the division of labor and by collective organization! The employer, having acquired possession of this power by purchasing it, invents a multitude of ingenious schemes for increasing its productivity, — such as lengthening the day of labor, stimulating the workman to increased effort by the deceptive device of "piece wages," and introducing machinery that enables him to make profitable use of the cheap labor of women and small children.

The price which the employer pays for manual labor, moreover, varies directly with the laborer's cost of living; and the progress of civilization tends constantly to decrease this cost. If it were possible, for example, to increase the productivity of labor so greatly that five minutes would be enough to produce a man's daily food, a day's work would be worth the product of five minutes' labor. The employer, having control of the entire productive process simply because he has control of that indispensable factor, capital, would pay a wage equivalent to five minutes' labor, keeping for himself all the rest, *i.e.* the value produced during the other nine hours and fifty-five minutes.[1]

This elaborate display of dialectic, designed to prove that profit, by its very nature, is based on spoliation and cannot exist otherwise, is founded on the assumption that the value of manual labor, like that of merchandise, is determined solely by the cost of production. But if we refuse to accept this fundamental assumption as a true and

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[1] Rodbertus developed a theory closely resembling that of Marx. We quote the following passages, reminding the reader that Rodbertus defines the term *rent* (*Rente*) as "all income secured without personal exertion solely in virtue of possession"; rent, therefore, means all income except that due to personal labor.

"As there can be no income unless it is produced by labor, rent rests on two indispensable conditions. First, there can be no rent if labor does not produce more than the amount just necessary to enable the laborers to continue their labor; for without such a surplus no one, unless he himself labors, can regularly receive an income. Secondly, there can be no rent if arrangements do not exist which deprive the laborers of part or all of this surplus and give it to others who do not themselves labor; for in the nature of things the laborers themselves are always the first to come into possession of their product. That labor yields such a surplus, is due to economic circumstances that increase the productivity of labor. That this surplus is entirely, or in part, withdrawn from the laborers and given to others, rests on grounds of positive law; and as law has always united itself with force, it effects this withdrawal only by continual compulsion.

"This compulsion originally took the form of slavery, the origin of which is contemporaneous with that of agriculture and landed property. The laborers who created this surplus were slaves, and the master to whom the laborers belonged and to whom consequently the product itself also belonged, gave the slaves only so much as was necessary for the continuance of their labor, keeping the remainder or surplus for himself. When all the land has passed into private property, and at the same time private property exists in all the capital of a country, then property in land and capital exert a similar compulsion even upon freedmen or free laborers. Like slavery, this state of affairs means, first of all, that the product does not belong to the laborers, but to the masters of land and capital. It means, in the second place, that laborers who possess nothing, — while the masters possess land and capital, complete explanation of value,[1] — if, as many economists maintain, this theory is inadequate even in the case of ordinary commodities and inapplicable to labor, — the whole argumentative structure erected upon it collapses.

In spite of this, the socialistic argument possesses considerable critical value as a scathing and partly justifiable arraignment of the present social organization based on the employer system and the wage system. There is especially a large share of truth in the contention that labor has been treated as a commodity to be bought and sold like any other commodity.* Employers have, as a matter of fact, tried to obtain labor as cheaply as possible; and during many centuries they have been wonderfully successful in this endeavor. But in reply to these charges we may call attention to those new phenomena that were pointed out when we discussed the subject of wages: trades unions, labor laws, coöperation, and the whole group of measures tending to regulate the rate of wages by other laws than those which govern the price of merchandise.

Nevertheless, while insisting that profits are not necessarily illegitimate, nor the employer necessarily a spoliator, we may raise the question whether the office or "social function" of the entrepreneur is an indispensable and permanent one, as most economists would have us believe, or whether it is, on the other hand, merely a "historical category," *i.e.* the result of forces and exigencies which arise in the course of economic evolution and may sooner or later disappear.

— are glad to receive a part only of the product of their own labor, in order that they may support life with it, *i.e.* sustain their power to labor. Thus, instead of the commands of the slave-owner, we have a contract between laborer and employer; but this contract is a free contract only in name, not in reality, and hunger makes a good substitute for the whip. What was formerly called food is now called wages."

Rodbertus regarded the income of the capitalist, entrepreneur, and landlord, as plunder; or, as he himself said, legalized robbery of the products of others' labor.

[1] See pages 59 ff.

This is quite a different question from that regarding the present legitimacy of profits.

We have seen that in the last analysis the function of the entrepreneur is to buy productive services in order to sell them again in the form of commodities; he serves as an intermediary between laborers, capitalists, and landowners, — on the one hand, — and the consumers of goods, — on the other hand. But the rôle of intermediary, or go-between, is not of such paramount social importance that its suppression is inconceivable. Indeed, the general tendency to-day is in favor of the abolition of all intermediaries. We have called attention to this tendency with regard to tradesmen and storekeepers; the same tendency is equally perceptible and desirable with regard to entrepreneurs.[1]

There are even now many successful stock companies and corporations which appear to get along without the entrepreneur or employer. This, in fact, is the strongest argument used by collectivists to prove that the employer or entrepreneur is no longer a necessary productive agent, but simply a social parasite. According to collectivists, the fact that nowadays the most important business concerns are not designated by the names of the individuals at their head, as formerly, but generally constitute joint-stock companies or corporations having no personal identity, is sufficient evidence that the entrepreneur no longer exists — if we use this term as political economists use it, *i.e.* to designate the person who is both the owner and director of an enterprise, and who receives profits in payment for daily work of a particular kind. The individual employer has been done away with; or, rather, his place is taken by a multitude of idle stock-holders. If we do away with these stock-holders as well, the enterprise will continue precisely as before. Present economic evolution, by which large-scale production is everywhere being substituted for small-scale methods, and by which impersonal corporations and large stock companies are taking the place of small individual enterprises, will soon reduce all employers and entrepreneurs to mere stock-holders whose sole task is to detach coupons and collect dividends. Whereupon, according to the collectivists, their uselessness being patent to everybody, their social function will be at an end.

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[1] This would not be true if profits were, as Professor J. B. Clark maintains, "the lure to invention and to all the improvements which enlarge the general product of industry." With regard to Clark's position on this point, Mr. J. H. Hobson aptly remarks that the entrepreneur "certainly has the habit of collecting and utilizing inventions, but he does not as entrepreneur make the main body of them, neither does he make the main body of other industrial improvements. He is a middleman in regard to these matters. The great accessions to our wealth are due not so much to monopoly of capital and labor and the organization of it, as to specific applications of the natural sciences to methods of industry. That is to say, the work is commonly done by the servants of the entrepreneur, who get a very small proportion of what would be equal to the actual value of the increased productivity which their labor creates. A great many inventions, including the greatest inventions of all, are not made for profit, and would be made if no profit attached to them. Those which do require some incentive of profit do not require the enormous profit which the entrepreneur is often able to take for them." ("Proceedings of the American Enconomic Association," 1902, page 144.)

The function of the inventor is of great social importance; but it cannot be held that the suppression of the class of entrepreneurs would mean the suppression of inventive activity.

It is perfectly evident that mere stock-holders — the "sleeping partners" — of a business concern do not play a very active part in business life. For this reason we have said repeatedly that the rise of this new kind of property (called *shares of stock*) and this new variety of income (called *dividends*) jeopardizes the existence not only of the class of employers and entrepreneurs, but also the institution of private property itself. It may indeed be said, in agreement with most economists, that these corporations extend the ownership of capitalistic enterprises to a large number of persons and thus introduce a democratic element into modern industrial life; but in our opinion a much more noteworthy characteristic of this state of affairs is that stock companies constitute an easy transitional step toward collectivistic expropriation.

The conclusions drawn by collectivists from the present tendency toward corporate forms of enterprise are, however, largely illusory. Two points in particular should be noted: —

(1) All stock companies, no matter how impersonal or how large they may now be, were originally founded by private individuals with a view to reaping profits; nearly all of them, moreover, are still managed and controlled financially, if not technically, by one leading shareholder who is really an employer or entrepreneur.[1]

(2) In stock companies and corporations, moreover, the absence of an employer or entrepreneur (in the strict sense of the term) is really the cause of a marked inferiority, and involves disadvantages resembling those that are noticeably inherent in public administration. The hired superintendent of an industrial concern owned by a corporation is, indeed, like a government official: he is usually not so zealous as the man who looks after his own private affairs. The disadvantages which would doubtless soon become apparent under collectivism, if ever it were introduced, are as follows: The absence of individual initiative and of that feeling of personal responsibility which prompts men to do their very best; bureaucratic methods and "red tape"; the waste of time and energy, of labor and capital — a memorable example of which is furnished by the early history of the Panama

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[1] We do not deny that enterprises established a long while ago, and now perfectly organized for the transaction of business along well-defined lines — such as insurance companies and railroads — can get along very well without entrepreneurs or employers. Such enterprises are, in fact, entirely fit for transfer to governmental management. We maintain simply that the time is still far distant when we shall be able to dispense with the entrepreneur as a *creator* of new enterprises. In all dynamic, progressive nations, the entrepreneur will continue to be an indispensable power. He will be unnecessary only when human societies have attained a static, permanent condition — which is not an altogether impossible state of affairs.

Nor do we maintain that it is possible to get along without shareholders, that is to say, without the help of the savings of persons not directly concerned in the management of an enterprise.

Canal. We by no means share M. de Molinari's opinion that stock companies are the ideal future form of productive enterprise. (See page 160.)

Although economic evolution seems to point to the ultimate elimination of the class of employers and entrepreneurs, as well as the abolition of the wage system (of which employers and entrepreneurs are an essential part), the time does not yet seem ripe for accomplishing this step. We shall presently find sufficient proof for this in the difficulties which coöperative societies for production, the purpose of which is precisely to do away with the employer, experience in organizing and carrying on their work.

It should be noted, in conclusion, that there is a general tendency to exaggerate the rate of profits. The circumstance that the profits of an enterprise all go to one man or to a few men, while the wages are distributed among hundreds or thousands of sharers, leads to false ideas regarding the magnitude of profits as compared with wages. If all employers and entrepreneurs were done away with, and their profits divided among all the laborers, the latter would be surprised to discover how small an increase of their incomes would be the result of this expropriation.[1]

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[1] Mr. S. H. Adams, in an article in *Scribner's Magazine* for January, 1897, quotes the manager of a large department store to the effect that the profits of these stores are represented by the cash discounts on their bills. As it is well known that 5 per cent is a high average discount, we have here an index as to yearly profits. There was a time when 10 per cent profit was regarded as nothing extraordinary. Now it is considered decidedly advantageous. The Twenty-first Annual Report of the Massachusetts Bureau of Labor Statistics, based on returns from over 10,000 establishments in that state, declared that 7.61 per cent of these establishments did not make any net profit. The result for all industries indicated a net profit amounting to 3.90 per cent of the selling price, and equivalent to 4.83 per cent on the capital invested.

It should be added, however, that this report, like all statistics of profits, has been severely criticised. All figures on this subject must be suspiciously viewed. Indeed, it is extremely doubtful whether trustworthy data are obtainable. The term "profits" is so variously understood as to preclude

IV. Profit-sharing

In our discussion of the wage system as a method of remuneration, we pointed out that one of its principal disadvantages was the conflict to which it inevitably gave rise between employer and laborers. This is due largely or entirely to the fact that — *other things being equal* — the higher wages are, the lower profits will be, and vice versa.[1] This is what Ricardo meant when he declared that "every diminution in the wages of labor raises profits," whereas "a rise of wages invariably lowers profits." Constant strikes furnish ample evidence of this antagonism of interests. Under the existing economic organization of society, employers and workmen constitute two separate groups, facing each other in an attitude of mutual opposition, yet each unable to get along without the other; they are, almost in spite of themselves, bound together by ties of interdependence.

Another undesirable result of the wage system, of which

statistical uniformity, even if entrepreneurs were able and disposed to tell the precise truth.

The precariousness of profits, moreover, must be taken into account, inasmuch as one bad year may wipe out the accumulations of several good business years.

According to Leroy-Beaulieu, "experience proves that of every ten industrial or commercial entrepreneurs, two or three become bankrupt or are obliged to quit business; five or six make just enough to live comfortably on the modest remuneration which they receive, but are unable to put aside much, if anything at all; and only one, or two at the outside, really succeed in building up a fortune of any size."

In 1902 the number of commercial failures in the United States (*i.e.* excluding bank failures) reached 9,639. Since 1876, in fact, the number of annual failures has rarely fallen below 10,000, and has twice exceeded 15,000.

[1] We emphasize the condition "other things being equal." For it is evident that if productivity changes, and the total output of an enterprise is, let us say, doubled, it is possible for both wages and profits to be doubled *simultaneously*. It frequently happens that in new countries, where productivity is greatest, wages and profits are both high.

In a paper read before the American Economic Association in 1902, Pro-mention has already been made, is the nature of the wage contract, by which the laborer is confined to a purely passive part and has no direct interest in the success or failure of the enterprise with which he is connected. Workmen cannot be dissuaded from the idea that they have some claim to the wealth that issues from their hands. Nor can they be prevented from contemplating with bitterness the fact that successive generations of employers or stock-holders grow rich from the proceeds of factories or mines in which they — the laborers — have worked faithfully from generation to generation without ever rising above a condition of apparently unchangeable poverty. It is true, perhaps, that they have been mere manual laborers, simple "hands" in the employ of their masters. But the great misfortune of our social organization consists in just this fact that men may be regarded as mere instruments for other men.[1]

Profit-sharing is that method of remunerating labor which aims to do away with the above disadvantages of the wage system by making the wage-earner a kind of partner with the

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fessor J. B. Clark suggested the possibility of "labor organizations and trusts coöperating in such a way that the two consolidations together could impose on the public a monopolistic tax which neither could impose if it acted by itself. Workmen and employers are antagonists in one part of the distributive process, and allies in another part. They may fight the employers fiercely enough when the issue at stake is how much of what is extorted from the public shall be made over to labor; but in making the extortion the interests of employer and employed are in harmony."

High wages do not necessarily mean low profits. It is quite probable that the employer will find it profitable to hire better-paid laborers or to increase the wages of those already in his employ, if only the increase of wages coincides with a sufficient increase of productivity to result in greater net profits. What the entrepreneur cares about is not the gross expenditure, but the total net profits. High-priced labor is not necessarily the dearest labor. (See page 494.)

[1] Kant's first moral precept, called the "supreme practical principle," is as follows: "Remember at all times that we must regard the person of our neighbor as an end in itself, not as a means." It is evident that the present social organization, under which laborers in the employ of an entrepreneur are a means for his enrichment, is a violation of this elevated maxim.

employer. Profits, instead of falling exclusively to the latter, are divided, according to some system of sharing, between employer and employees, the workmen thus receiving an addition to their regular wages if the enterprise has been successful.

This arrangement has existed among fishermen from time immemorial. It may also be said that the "metayer" system in agriculture is simply a kind of profit-sharing. But the first experiment of this kind to achieve a noteworthy success was that made in 1842 by Leclaire, a Parisian house-painter. Leclaire came to the conclusion that there are in the common workman moral qualities to which the simple wage system makes slight appeal because it leaves the inspiring word "profit," with all its implications of ambition, zeal, and persistence, out of the workman's vocabulary. He believed that the energy called forth by the prospect of profits would (by increasing the quantity of the product, by improving its quality, by promoting care of implements and machinery, and economy of materials, and by diminishing labor difficulties and the cost of superintendence) create a return beyond the average, a return not only sufficient to pay a bonus to the workman, but also to increase the profits of the employer.

There are now probably over a hundred establishments in France which apply the system of profit-sharing. The most interesting of them is the largest department store in Paris, the *Bon Marché*, employing over three thousand persons and doing a business of $30,000,000 a year. The results of the system have generally been less satisfactory in England and the United States, although many experiments along this line have been tried in both countries.[1]

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[1] For a more detailed discussion of the nature and history of profit-sharing, the student may refer to the following books: N. P. Gilman, "Profit-sharing between Employer and Employee"; Sedley Taylor, "Profit-sharing between Capital and Labor"; the article on Profit-sharing in Bliss's "Encyclopædia of Social Reform."

The fundamental idea of profit-sharing is susceptible of the most varied application, but the name is usually confined to those cases in which it is not simply a spontaneous gift on the part of the employer, but a *contractual* arrangement. In other words, profit-sharing must be set down as a part of the rules governing a business enterprise; it must be granted to employees as a right, without distinction of persons, and subject only to conditions prescribed in advance. It usually provides that the distributed profits shall be shared among the employees in proportion to their respective wages and with some regard for the length of their service.

The shares given to the laborers may either be paid to them in money or placed to their credit in a savings-bank or insurance association. In France, where profit-sharing appears to be most successful, the latter method prevails; the laborer's share of the profits is generally paid into a fund for providing insurance against sickness, disability, or death. This method has the merit of assuring the good use of the workman's supplementary remuneration; but by postponing to some distant time the actual enjoyment of these advantages, it diminishes the good results that are usually attributed to profit-sharing.

The objects of profit-sharing, numerous from both the moral and economic point of view, are as follows: —

(1) To reconcile labor and capital, and to increase the laborer's dignity by transforming him from a mere productive instrument into a partner.

(2) To increase the productivity of labor by stimulating the workman's activity, furnishing him an incentive for faithful work, and leading him to feel a direct, personal interest in the success of the enterprise in which he is employed.

(3) To increase the laborer's income by adding to his ordinary wages (which continue to be devoted to his running expenses) an annual dividend that can be saved or used to meet extraordinary expenses.

(4) To avoid loss of employment by attaching the laborer more closely and more permanently to the enterprise in which he is employed.

It must be admitted, however, that the great hopes aroused by this system have not been realized. The number of firms which practise profit-sharing tends in most countries rather to diminish than to increase. It has, moreover, met with little encouragement or approval either from socialists or from conservative economists.

On the part of socialists, this is readily comprehensible. Socialists regard profits as a robbery, committed by employers to the disadvantage of laborers. A supposed reform, they declare, which consists in righting such robbery by giving back a share of the booty to the victim, is the height of impertinence!

Conservative economists, without expressly condemning profit-sharing, hesitate to acknowledge its utility. Professor Leroy-Beaulieu ironically calls it a device for making the wage system more "palatable," and declares that laborers really have no right to a share in the profits, inasmuch as profits are due to no merit or exertion of theirs, but are exclusively the result of the entrepreneur's management and circumspection.

This argument is valid if we hold that profits are the wages of invention and superintendence; for the laborers take no part in either of these activities, and are therefore not entitled to share in their results. But if we maintain that profits, strictly speaking, are generally the result of a monopoly-element of some sort (see page 625), it is only just that the laborers should participate in the advantages due to a monopoly which is useless without their help. Note especially that share-holding capitalists are supposed to be fully entitled to a proportionate part of the proceeds of an enterprise, although there can be no doubt that the profits resulting from a monopoly-element are due much less to their work than to that of the employees.

Another serious objection which has been raised is that if the laborers share the profits, they should also share the losses; but as the latter is impracticable, the former is unjustifiable. This argument, however, is not conclusive. It goes without saying that if there are losses, the laborers will receive no profits. But is it equitable to go further than this, and reduce wages by the amount of the losses? When the managers of an enterprise discover at the end of a business year that there has been a loss instead of a profit, is the interest due the capitalist for borrowed money reduced for this reason? By no means! Now the workman has just as much right to the stipulated wages as the capitalist has to the stipulated interest; for the laborer also has furnished one of the requisites of production. As a matter of fact, however, if the business does not prosper, the workman's wages will probably be reduced, while the capitalist will continue to receive the same interest. The objection may still be raised that when an enterprise fails, the capitalist loses his capital, whereas the laborer does not. This is true simply because the laborer has no capital to lose. But he does lose his place and the *means of earning a living;* and certainly this loss is quite as great as that experienced by the capitalist. Capitalists and laborers have their own distinct risks, and there is no reason for confounding them.[1]

The institution of profit-sharing is not gaining much ground, because it is subject to the disfavor which now attaches to all forms of the wage system, to paternalism, to the industrial sovereignty of the employer, and, in fact, to every device which tends to strengthen the bonds between employer and employee. Labor and capital are each in quest of greater independence of the other. The prerequisite of profit-sharing, however, is a spirit of fellowship and friendly collaboration — the spirit that is every day becoming rarer. Laborers as a rule prefer such a system as "job contracts," to which we have already referred.

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[1] The arguments of conservative, "liberal" economists against profit-sharing are stated with considerable detail by Leroy-Beaulieu in his *Economie Politique*, Vol. II. Refer also to Hadley's "Economics," pages 373 ff.

A summary of the case against profit-sharing, evidently from the standpoint of a more radical economist, may be found in Bliss's, "Encyclopædia of Social Reform." Here the argument is presented that profit-sharing is unjust because it reduces the proportionate share of the laborers by leading them to create, by their greater activity, not only a bonus for themselves but also additional profit for the employer. It says, "If *you*, the worker, will work a little harder, *we*, the management, will give *you* a slight share of your increased earnings."

Thus profit-sharing is a modification, an improvement, of the wage contract; it is not the complete and perfect *association of capital and labor*, the laborers having neither any responsibility for the losses incurred, nor any share in the management. Profit-sharing may be transformed into the association or quasi-partnership of labor and capital, by converting the share allotted to the laborer into part-ownership of the enterprise; in other words, by making the laborer a stock-holder.[1] This more radical variety of profit-sharing, which has been tried in a number of establishments, is sometimes called industrial co-partnership, or *labor co-partnership.*

V. Productive Coöperation

A still more radical scheme is that which contemplates the abdication and gradual disappearance of the employer, by transferring all the stock of an enterprise to the laborers themselves. Thus profit-sharing is transformed into *productive coöperation.* Industrial co-partnership may be regarded as the transition-stage between the two systems. The Leclaire establishment (to which we have referred), and the celebrated "Familistery" at Guise, founded by Godin, have gradually been transformed into societies for productive coöperation. But societies for productive coöperation may also be formed spontaneously by groups of workmen themselves, without passing through these transitional stages.

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[1] This transformation of the laborer into a stock-holder may be either *elective* or *obligatory;* in the latter case the laborer's share in the profits becomes *ipso facto* a share of the stock. The latter method appears somewhat autocratic; but, unfortunately, experience shows that it is the sole effectual method of accomplishing the aim in view. The Familistery at Guise (in France) was built up by this method.

France is regarded as the classic land of institutions of this nature, and seems to have taken the first steps toward productive coöperation. The first coöperative society for production was founded in 1834 by Buchez, a French publicist. At the close of the Revolution of 1848, the movement in favor of productive coöperation assumed great vigor, and more than two hundred labor societies for production were founded in France, particularly in Paris. But only four of them have survived. There was, however, a temporary recrudescence of the movement in 1866, and in recent years the number of these organizations has increased with considerable rapidity.[1]

In the United States, the first productive coöperative association of which we have any record was the Boston Tailors' Associative Union, which was formed in 1849, but did not last long. The best known American coöperative enterprises of a productive character are those among the coopers of Minneapolis. As early as 1868 the experiment of renting a small shop and selling the product directly to the mills was tried by a few journeymen coopers; they allowed themselves the ordinary rate of wages, calculated on the piece system, and then divided the profits in proportion to the work done. Successful instances of productive coöperation may be found among boot and shoe companies. Coöperative creameries and dairies have also had considerable development in the United States.[2]

The obstacles encountered by productive coöperative societies are numerous, and account only too well for their want of success and for their comparatively short duration in many cases.

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[1] In 1902 there were in France 323 coöperative societies for production, some of which were very prosperous.

The Report of the Thirty-fourth Annual Coöperative Congress (1902) recorded 136 "productive societies" in Great Britain; in addition, there were thirty coöperative societies for farming.

[2] Consult Professor F. Parsons's article in the *Arena* for August, 1903.

(1) The first and greatest obstacle consists in the *lack of economic education* among the working classes. Laborers are rarely able to find among their own numbers men capable of managing a business enterprise. Again, assuming that such men can be found, the laborers do not know enough to choose them and keep them as managers; the very superiority of such men frequently leads to their exclusion. Furthermore, even supposing that such men are chosen as managers, the rank and file of laborers are rarely willing to give the managers a share of the proceeds proportionate to the value of their services, the superiority of intellectual over manual labor not being sufficiently understood.

(2) The second drawback is the *want of capital.* We know very well that although it may be possible to eliminate the capitalist from productive enterprises, it is, at all events, impossible to get along without capital; and large-scale production demands capital in larger and larger amounts. (See page 135.) How can mere laborers obtain the amount of capital requisite for successful production? By putting aside a few cents day by day? This, to be sure, is possible, and it has been done in the case of a few businesses conducted after the methods of small-scale industry; but it is accomplished only at the cost of heroic sacrifices, and is altogether exceptional. Ought the government to lend them the requisite funds? This experiment was tried in France in 1848, but the $400,000 distributed for this purpose among various productive societies brought little success to these organizations. Nothing is easier than to waste money that is freely received, especially when the government is the donor.[1]

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[1] The socialists maintain that all successful enterprises must be equipped with the best appliances, — machinery, etc., — and that these appliances cost large sums of money. The workers, however, do not possess sufficient money, and for this reason they cannot carry on their own productive enterprises. All that is needed, therefore, in order that they shall prosper, independently

We do not, however, regard this difficulty as insurmountable. Carefully organized and firmly established workmen's productive associations, when once they have given proof of their economic vitality, would easily be able to borrow all the capital they might require. They could do this either through the agency of coöperative banks (such as are already in existence in Germany, Italy, and France) or by seeking help from other coöperative organizations (such as distributive coöperative societies) having considerable capital at their disposal. (See pages 396 and 677.)

(3) The third danger, finally, is that they *tend to reëstablish the very institutions which they seek to eliminate*, namely, the class of employers and the wage system. This shows how difficult it is to modify the organization of society. Too often, when coöperative associations have proved successful, they close their ranks, refuse to accept new members, and engage hired workmen (*i.e.* wage-earners), — thus becoming nothing more than stock companies or partnerships made up of small employers.[1] This is the principal objection that socialists raise against productive coöperation, and we must admit that it is well founded. On the other hand, would it not require exceptional disinterestedness on

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of capitalist and entrepreneur, is the requisite capital. Ferdinand Lassalle proposed that the government should meet this difficulty by advancing several millions of capital to associations of workmen who would guarantee to make good its value at the close of the period of production. Lassalle believed that productive associations thus aided by the state could drive private businesses out of the field and gradually lead to a reorganization of society on a collectivistic basis.

[1] The Coöperative Barrel Company of Minneapolis, for example, regarded as a noteworthy example of coöperative production, had a number of employees working for wages.

The same was true of the Rochdale Pioneers, in England. Even now some productive works of the English Coöperative Wholesale Society are carried on by hired laborers that have no share in either profits or management.

One of the Parisian coöperative societies for production (that of the spectacle-makers) has fifty members and twelve hundred employees working for wages, and the value of a share of its stock has increased from $60 to $10,000. Clearly, such a society is coöperative only in name.

the part of those workmen who have succeeded by dint of privations and perseverance in founding a prosperous business, if we should expect them to admit on a footing of equality all those who wish to enter at the eleventh hour, when the difficult task of organization has already been accomplished?

Yet there is reason to hope that these obstacles in the way of productive coöperation may be avoided by first traversing a stage of preparation; this preparation could be provided in these ways: —

(1) By profit-sharing. Sometimes the employer will consent to withdraw gradually from the leadership of an enterprise by enabling the laborers to become partners during his lifetime, and his successors after his death. The most celebrated examples of this method are furnished by M. Godin in the Familistery at Guise, and by Madame Boucicaut in the case of the *Bon Marché*, a Parisian department store.

(2) By trades unions. Several productive associations in France owe their origin to trades unions. Again, the Sovereigns of Industry and the Knights of Labor, two organizations of workingmen in the United States, founded a number of enterprises for coöperative production. When trades unions take this step, they do not set to work all the members of the organization simultaneously, — having neither capital nor markets sufficient to do this, — but only those members of the union who happen from time to time to want employment.

(3) By consumers' coöperative societies. When these societies are sufficiently developed, and united into larger federations, they can undertake coöperative production, and furnish this new departure with the three requisites of success: *capital*, which they are able to lend; experienced men suitable for *managers;* and regular *customers*, consisting of the consumers' societies themselves. These three elements, be it noted, are precisely those which have hitherto been wanting. Some consumers' coöperative societies in England,

where a number of prosperous productive societies have already been established, pursue this policy.

It is by the last-named method that productive coöperation may achieve greater successes in the future. In this connection it is important to note the difference between the *federalistic* and the *individualistic* systems — as they are designated in England.

Under the federalistic system, consumers' coöperative societies, either separately (when they are strong enough) or in groups, establish workshops or factories for producing, on their own account, some of the articles they require. In this case the laborers in their employ are simply wage-earners, and in no wise co-proprietors of the concern; usually, moreover, they have no share in the profits, these being reserved exclusively for the members.[1] There has been much opposition to this system, on the ground that the laborers should have a share both in the profits and in the ownership of the workshop or factory. This step has already been taken in the case of the Scottish Wholesale Society.

Under the individualistic system, which had better be called the autonomous system, the first steps are taken by the laborers themselves, who form independent productive societies; the consumers' societies only lend them the capital, provide a market, and protect them from competition.[2]

As the conclusion of this chapter, and of the whole book on Distribution, we venture to assert that there is a parallelism between the political and the economic evolution of society. Political evolution embraces the three successive stages of absolute monarchy, constitutional monarchy, and republic. There are many sound reasons for believing that economic evolution follows step by step along corresponding lines, and includes, first, the stage of coercive organization (slavery); second, the rule of the employer (the wage system); third, the rule of the employer modified by profit-sharing and certain concessions to the laborers with regard both to the ownership and management of business enterprises; and, finally, coöperative production. There are, however, equally good reasons for believing that the advent of democracy in the domain of economic life will be slower and more difficult, and will involve even more disappointments, than in the political sphere.[1]

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[1] It goes without saying that if these employees are members of the consumers' society which employs them, they participate, as such, in the profits of the factory or shop.

[2] In England these independent productive societies numbered about one hundred in 1901, with a capital of over $7,000,000 and an output valued at nearly $15,000,000.

The productive enterprises founded directly by the consumers' societies, either separately or through wholesale societies, produced $36,000,000 worth of goods, or more than twice as much as the preceding societies. (Consult the Book on Consumption for a further treatment of consumers' societies.)

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[1] John Stuart Mill regarded independent productive coöperation as the means of solving the social problem.

Despite Lassalle's advocacy of it, collectivists are now openly opposed to productive coöperation. Productive societies, although they aim to abolish the wage system, retain the individual ownership of capital as the basis of their organization, inasmuch as they expressly endeavor to make the workmen co-proprietors of the instruments of production. Collectivism, on the contrary, aims to "socialize" the instruments of production, *i.e.* to withdraw them from individual ownership *even by the laborers themselves.* This antagonism was clearly shown in the recent strike at Carmaux, in France, when the proposal was made to start a glass-works belonging to the glass-workers themselves. The socialists protested that the works should belong to the entire laboring class; and their plan was ultimately adopted.

Liberal economists regard productive coöperation with the same ironical attitude of condescension as profit-sharing and coöperation in general. As they do not admit either the desirability or the possibility of abolishing the wage system, they cannot admit the possibility of getting along without a class of employers.

BOOK V. CONSUMPTION

I. The Nature and Laws of Consumption

To consume wealth is to utilize it for the satisfaction of our wants, to apply it to the uses and purposes for which it was produced. Consumption is, therefore, the ultimate aim of all economic activity, — of production, exchange, and distribution. Its importance is far greater than is indicated by the meagre space devoted to it in most treatises on political economy. It is, moreover, a field of investigation rich in curious facts, but very largely unexplored. A greater knowledge of this field is likely some day to transform economic science. Logically, economics should begin with the study of consumption. Did we not begin this volume with a study of wants and utility, — matters which clearly belong to the domain of consumption?

The tendency of modern economic theory, especially of investigations concerning the subjective nature of value, has been in the direction of giving added importance to consumption as a necessary part of the edifice of economic science. The so-called Austrian school studies consumption and value from the standpoint of final utility (see pages 59 and 182) and emphasizes the principle that in the consumption of wealth the maximum of gratification is reached when the final utilities of the last increments consumed are equal. Everybody consciously or unconsciously employs his income and makes his purchases according to this law. It is a law so important that we shall devote some space to a more detailed explanation of it.

As we have already said, the purpose of economic activity is human welfare, human gratification; or, to be more strictly accurate, its ultimate purpose is either to produce positive pleasure or to avoid pain. Men seek to minimize pain and to maximize pleasure. But these two aims — to minimize pain and to maximize pleasure — are in a sense antagonistic. More wealth means more pleasure, and if there were no effort or pain involved in the acquisition of wealth, our consumption of it would be limited only by satiety.[1] But in the example of the man drawing water from a well (see pages 55 and 82) we saw that whereas the utility of each successive bucket decreases, the effort or pain necessary to obtain it increases because of growing fatigue. Most of the commodities that we consume are, to be sure, not the direct product of our own labor, but are procured by the use of money. Therefore it seems strange to speak of the pain or effort necessary to produce them. Yet this expression is perfectly correct, viewed in its deeper significance. For, in the first place, it is by labor that we get the money; and when we exchange this money for goods we are really exchanging our labor and effort (see page 212) for the labor and effort of others; and, in the second place, whenever we spend money for one commodity in preference to another we are really sacrificing that other commodity, which we *might have purchased.* If under given circumstances we buy oranges rather than peaches, we do this because oranges afford a greater gratification than we can obtain from peaches.

Concrete examples will make this matter clearer. And in order that the factors of the problem of consumption may be clearly distinguished from each other, let us begin with the simplest possible example and subsequently introduce the elements that further complicate the problem.

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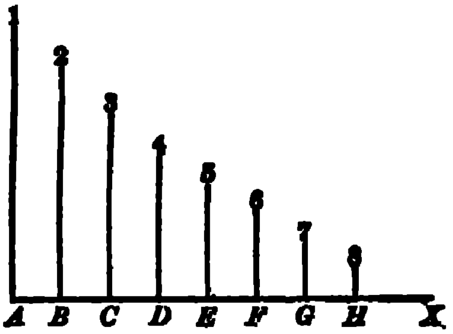
[1] It is, perhaps, necessary to point out that the term "pain," as we have used it and as it is coming to be used very generally among economists, merely means the opposite of pleasure. There are objections to its use in this sense, because of its association with disease or other abnormal physical conditions. The term simply means disutility.

Take the consumption of water, of which there is an abundant supply. Let us suppose that it costs absolutely nothing. What, in such a case, would be the limit to our consumption of it? Clearly we should consume just as much as afforded us any gratification whatever.[1] A certain amount would be indispensable. Still more would, up to a certain point, be highly agreeable. Additional quantities would decrease rapidly in utility, down to the point where we should have absolutely no use for more water. If, now, the acquisition or employment of each portion involves some effort, — say the time and effort of turning a spigot and carrying the water away, — we will cease consuming water at precisely the point where the utility is still somewhat greater than the effort, but beyond which it would not be "worth our while" to get more of it. This condition of affairs may be represented by the following diagram: —



The line *AX* represents the amount of the commodity; that is to say, in this case, the supply of water. The lines

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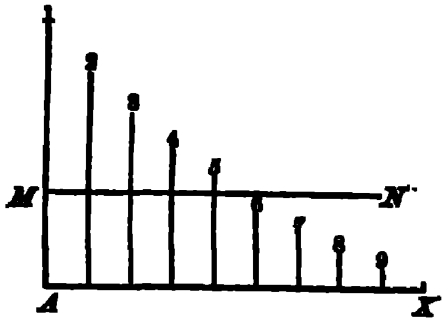
[1] This statement requires some qualification. The limit to consumption is fixed not only by the point of satiety, and, as we shall point out later, by the actual "cost" of the commodity, but also by the *time* at our disposal if we intend to consume any other goods, and by the fact that the continued consumption of this commodity may be incompatible in kind with other pleasures from different sources. A man will cease consuming water before further increments possess no utility, if it is his intention to consume other goods that provide a greater utility-surplus than additional increments of water. To consume more water will decrease a man's capacity for consuming other goods and will always take a certain amount of his time (which is one of his valuable possessions).

A 1, *B* 2, *C* 3, etc., represent the utility of successive portions used. The consumer in this illustration will use eight units because the utility of the eighth unit is still a positive quantity.

As a matter of fact, we consume as much water as we think we have any use for. But water is an exceptional commodity as regards supply. Most commodities are not obtainable in sufficient quantity to satisfy entirely the wants of all mankind. Take, for example, suits of clothes. Would not any of us willingly accept more suits of clothes if he might obtain as many as he could use? Why, then, do we not possess more? Because they cost money. And, as our supply of money is limited, we cannot obtain additional suits without spending money that might be used for the purchase of *some other commodity* of which our present supply is also insufficient to satisfy our wants entirely. We are certainly willing to pay a large sum of money to obtain at least one suit; for this is absolutely necessary. We probably will not hesitate to pay the price for a second suit. The money that we must sacrifice to obtain it would, to be sure, buy something else which we may desire keenly; yet our desire to be well clothed outweighs our longing to possess the object that we might otherwise purchase with the cost of the second suit. There are, as a matter of fact, persons who buy not merely one or two suits, but half a dozen, before they feel that a greater gratification may be procured by employing their money in some other way than in buying an additional suit. This fact may be represented in the form of a diagram (see page 659), as follows: —

Here *AX*, as before, represents the supply of the commodity in question, and the lines *A* 1, *B* 2, etc., indicate the utility of each successive suit of clothes for a given consumer. *MN* is the cost line, and the part of each line *A* 1, *B* 2, etc., which falls below *MN* indicates the cost of each suit. If suits cost absolutely nothing, this consumer would find satisfactory employment for nine of them; but in view of the fact that they cost the amount represented by *AM*, he will purchase only five. The cost of the sixth suit is greater than the utility of the money which would have to be paid for it. The point of marginal utility comes after the fifth suit, but before the sixth.[1]



In the world of actual business we have a choice among almost innumerable uses of our money, and we are constantly called upon to make some decision with regard to the relative utilities of a multitude of commodities. The problem, then, is: How much of each commodity shall we consume? This depends partly on our desire for them, that is to say, on the utility or gratification which their possession involves; and partly on the cost (effort, pain, or sacrifice) necessary under given conditions to obtain them.

The principles which govern our choice of the kinds of goods and the amounts thereof that we shall consume may be made clear by the following example: Take four commodities that are offered for sale on the market. Let us designate them as *A*, *B*, *C*, and *D*. The first increment of *A* yields ten units of gratification; that of B, eight units; that of *C*, six; and that of *D*, three. Successive increments of each commodity will of course afford less gratification. The successive increments of *A*, including the first, will probably represent a decreasing scale,—10, 9, 8, 7, etc., units of utility. The successive increments of *B* represent utilities of 8, 7, 6, etc. The increments of commodity *C* represent utilities of 6, 5, 4, etc., units. The increments of *D*, finally, possess utilities of 3, 2, 1, 0. This scale of diminishing utilities may be arranged in this form:—

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[1] If instead of a series of vertical lines of decreasing length we indicate the decline of utility by a curved line running downward, the point of marginal utility will be the intersection of this curve with the cost line. It is of course possible that the cost may not remain the same, as assumed in the diagram given above. In agriculture the line of costs would be a rising curve, not a straight line; in manufactures it would, for a while at least, be a falling curve. Consult Marshall's "Principles of Economics," Vol. I, pp. 441 ff.

A	*B*	*C*	*D*
10			
9			
8	8		
7	7		
6	6	6	
5	5	5	
4	4	4	
3	3	3	3
2	2	2	2
1	1	1	1
0	0	0	0

If we assume, for convenience, that there are only these four commodities from which to choose, it is obvious that two increments of *A* will be desired before there will be any thought of applying our purchasing power to the acquisition of any of the other commodities. When four increments of *A* have been consumed, and two of *B*, there will be room for hesitation with regard to the advisability of beginning to consume some of *C*. If each increment represents what can be secured by one hour's labor, and if *A* stands for food, *B* for clothing, *C* for shelter, and *D* for ornament, the scale would express the following facts: That two hours' labor would be devoted to the production (or securing possession) of food before any other commodity could be considered; that the third hour would produce an equal utility whether devoted to clothing or food, so that half of it would probably be given to each; that only after six hours' labor, of which four had been given to food and two to clothing, could sufficient pleasure be derived from shelter to furnish an inducement to devote a portion of the time to the task of securing shelter. The corresponding numbers in the different columns represent different utilities, equal in amount and equally difficult of acquisition. If each separate desire could be completely satisfied, it would be found that ten increments of *A*, eight of *B*, six of *C*, and three of *D* had been consumed.[1]

From this discussion two fundamental principles may be deduced concerning the order and quantities in which goods will be consumed: (1) We will first procure and consume those goods which yield the greatest surplus of utility over costs. (2) We will endeavor to reach a maximum of gratification by making the final utilities of the last increments of all commodities as nearly equal as possible. If a man drinks ten glasses of beer and smokes ten cigars a day, this means that the gratification afforded by the tenth glass of beer is subjectively equal to that of the tenth cigar. For if the tenth cigar did not afford a pleasure equal to the last glass of beer, he would evidently prefer smoking one cigar less and drinking one more glass of beer; for thus the total gratification would be increased.[2]

Before leaving this aspect of the problem of consumption we must point out that although in the management of our expenses, and particularly in large-scale transactions, we constantly make careful estimates of the comparative utility and the comparative cost of commodities, yet seldom can judgments be made with the exactness that the above discussion appears to take for granted. Some authorities (despite Professor Jevons' able defence of the use of mathematics in his "Theory of Political Economy") deny that it is possible to express such subjective matters as desire and utility in quantitative terms. It is objected moreover that men are not so much creatures of reason as creatures of habit or impulse (both of which oftentimes prompt irrational conduct). Wants are often aroused by advertisements, show-windows, and circumstances of an accidental nature. There are, furthermore, cases in which the utility of additional units of a commodity is not necessarily less than that of the first increment — cases which are indicated by the proverb: "Appetite comes by eating."

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[1] A considerable part of this last illustration is taken from Dr. Devine's little book on Economics (Macmillan, 1898).

[2] A further discussion of the principles of consumption in their economic bearing will be found in: Patten, "The Consumption of Wealth" (Philadelphia, 1889); E. T. Devine, "Economics" (New York, 1898).

Yet it must also be pointed out that there is a striking uniformity in the habits of consumption of large classes of people. An investigation made by the United States Commissioner of Labor (Report for 1891) gave the following results concerning the percentage of expenditure for "normal" families: —

OBJECT OF EXPENDITURE	Income under $200	Income $300 and under $400	Income $500 and under $600	Income $700 and under $800	Income $900 and under $1000	Income $1200 and over
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
Food . . .	49.64	45.59	43.84	38.89	34.34	28.63
Rent . . .	15.48	14.98	15.15	15.00	14.96	12.59
Clothing .	12.82	14.14	15.27	16.33	16.84	15.71
Fuel . . .	7.07	6.04	5.63	4.42	4.00	2.57
Lighting .	1.01	.98	.97	.88	.74	.45
All other purposes .	13.98	18.27	19.14	23.88	29.12	40.05

It is evident that the scientific value of such tables as these depends largely on the number of cases studied and the accuracy of the data employed. Careful investigations of this sort, however, have been made by Le Play (1855), Ducpétiaux (1851), and Dr. Engel (1857), and subsequently by a number of other investigators. The general results seem in the main to agree with the inferences drawn by Dr. Engel, viz. : —

(1) As the income of a family increases, a smaller percentage is expended for food.

(2) As the income of a family increases, the expenditure for clothing remains approximately the same.

(3) In all the cases investigated, the percentage of expenditure for rent, fuel, and light, was nearly the same.

(4) As the income increases, a constantly growing percentage is expended for education, health, recreation, amusements, etc.[1]

The word "consumption" may give rise to errors which we must be careful to avoid. In the first place, it must not be supposed that all consumption necessarily implies *destruction.* This is indeed true in the case of some things; such wants as food and warmth can be satisfied only by the destruction of food and fuel. To utilize bread, *i.e.* to change it into flesh and blood, we must eat it; to warm ourselves with coal we are obliged to burn it, *i.e.* to reduce it to smoke and ashes.[2]

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[1] Mr. G. B. Waldron, in "A Handbook on Currency and Wealth" (New York, 1896), page 100, gives the following estimates for the consumption of wealth in the United States in 1890: *Necessaries*, $6,100,000,000, of which $3,305,000,000 was for food, $1,233,000,000 for clothing, $319,000,000 for furniture, $475,000,000 for fuel and lighting, and $768,000,000 for other necessaries. For *luxuries* the total expenditure was $3,584,000,000, of which $900,000,000 was for liquors, $450,000,000 for tobacco, and $2,234,000,000 for other luxuries. For *capitalistic uses*, $3,717,000,000; of which $2,436,000,000 was to renew old capital, $1,196,000,000 to increase the supply of capital, and $85,000,000 sent out of the country in payment for the use of foreign capital. In addition to these items, the permanent government expenses, — aside from salaries and other payments, which figure as consumed by other persons, — were $240,000,000. Probably no two authorities would agree on the amount which is annually withdrawn from consumption in order to maintain capital, and to make good the wastes of time and use.

[2] Economically, combustion is tantamount to destruction, but it is of course impossible to destroy matter itself. Just as man in production is powerless really to create anything (see page 73), he is also unable really to

But there are fortunately many other wants the satisfaction of which does not involve the destruction of wealth. The statue of the Venus of Milo will provide æsthetic enjoyment for all generations of mankind without thereby losing an atom of its substance; its power to provide pleasure may be destroyed by vandals, never by "consumers." Undoubtedly time itself is a destroyer of nearly all things except coins, bronze objects, and statues; and even these do not entirely escape "the tooth of time." *Tempus edax rerum.* But we must take care not to confound the effects of time with those of consumption. As a matter of fact, we strive to make things last as long as possible. If we could make all things indestructible (clothes, houses, furniture, etc.), they would not be worse, but better, adapted to economic purposes; for in such an event they could be utilized perpetually, and we should have attained the ideal of consumption.

On the other hand, we must not confound consumption with *production*. It is true that the production of wealth involves the constant consumption of raw material, coal, etc.; economists generally designate this consumption as *reproductive consumption*, to distinguish it from the consumption which serves for the direct satisfaction of our wants, and which is called *unproductive consumption*. But only the latter is consumption proper, and the name should be confined to it. The act of sowing seed, for example, must not be regarded as an act of consumption, but as the type of productive activity; to designate it as consumption, and to apply the same term to two acts so opposite as sowing wheat

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destroy anything. The chemist finds that not an atom of the "consumed" object has been lost.

Even when consumption results in the destruction of *utility*, it is often possible by means of economical methods and devices to make use of the residues of consumption. Paper is made of old rags, slag and swill are used to make fertilizer, coal dust is employed in the manufacture of dyes and perfumes. The possibility of using residual substances, even in small quantities, is one of the reasons for the superiority of large productive plants. In an absolutely perfect economy, no utility would be lost, and the consumption of wealth would be simply its metamorphosis.

and eating it, can be explained only by the paucity and inaccuracy of economic terminology.

Without doubt, the economic process forms a complete circuit. Man produces in order to consume, and he must consume in order to produce. This is so true that some economists have actually regarded sowing as an act of consumption, while others (such as Jevons) regard eating as an act of production, because they consider the food of the workman the very type of capital. Yet if we want to reason clearly in this matter we must draw a line somewhere. Man is both the beginning and the end of all economic processes. But man does not consume in order to produce; he produces in order to consume. The purpose of wealth is to be consumed, that is, to satisfy human wants. Consumption is not the first but the last stage of the economic process.[1] At all previous stages, wealth is still *being produced*.

Consumption is of two kinds: —

First, it is *direct* or immediate — when it satisfies present wants. As under present economic conditions most of what we consume is *purchased* from others, this kind of consumption is effected by means of the use of money and is called *spending*.

Secondly, it is *postponed* — when it is intended to provide for the satisfaction of future wants. Since under present conditions value is stored in the form of money, this operation is called *saving*.

We shall study each of these kinds of consumption in turn. But before doing so, we must say a word about another celebrated problem due to the unfortunate circumstance that the gratification of the most important human want — the need of food — involves the destruction of wealth.

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[1] "A fertilizer is useful to enrich a meadow; the meadow is useful to produce hay; hay is useful to feed horses; and horses are useful to do service. From the fertilizer to the man are several steps, but it is the final step which makes all the others count." — GREGORY, "Political Economy."

II. Whether Production will always keep pace with Consumption

Malthus, an English economist, in a formula that has since acquired great celebrity, affirmed that the *population tends to increase more rapidly than the means of subsistence.*[1] Far from anticipating that production would keep up with consumption, he declared that production would always lag behind — far behind — the demands of consumption. He concluded that the equilibrium could be brought about only by a frequent reduction of the population, effected by means of wars, epidemics, famines, pauperism, prostitution, and plagues, all of which, regarded from a higher point of view, Malthus considers really providential.[2]

Malthus, however, hoped that in the future men would learn to prevent the intervention of these "immediate checks" upon population and make them unnecessary by

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[1] In an illustration which many writers have erroneously regarded as intended to be taken literally, Malthus says that the population increases in a geometrical progression, while the food-supply increases in an arithmetical progression: —

Population increases thus: 1 : 2 : 4 : 8 : 16 : 32 : 64 : 128 : 256.
Subsistence increases thus: 1 : 2 : 3 : 4 : 5 : 6 : 7 : 8 : 9.

The average period in which the population could be doubled Malthus estimated as twenty-five years. He therefore concluded that: "In two centuries the population would be to the means of subsistence as 256 to 9; in three centuries it would be as 4096 to 13; and in two thousand years the difference would be almost incalculable."

"In this supposition no limits whatever are placed to the produce of the earth. It may increase forever and be greater than any assignable quantity; yet still the power of population being in every period so much superior, the increase of the human species can only be kept down to the level of the means of subsistence by the constant operation of the strong law of necessity, acting as a check upon the greater power."

[2] These evils are providential, according to Malthus, not only because they maintain the equilibrium of production and consumption but also because they exterminate the weak and the incapable, and thus contribute to perfecting the human race. It is known that the work of Malthus prompted Darwin to undertake his investigation of the evolution of species; Darwin himself tells us so.

voluntarily limiting the number of their offspring. To accomplish this Malthus advised them to use *moral restraint*, *i.e.* to marry only when they possess sufficient resources to support children, and, once married, to have only as many children as they can properly provide for.

A century has elapsed since the publication of this remarkable doctrine, and experience has not yet justified the pessimistic prophecies of its author.[1] On the contrary, in almost all countries, whether we consider new nations like the United States or old nations like France, wealth has increased more rapidly than population. To-day our principal anxiety is of quite the inverse nature. Markets are now so encumbered with manufactured and agricultural products that governments have been obliged to raise barriers of customs duties against the influx of foreign goods; the problem is how to find a market for products, rather than how to produce sufficient goods to consume.

The enormous and growing excess of production over consumption during recent years may of course be due to causes that will not recur, — such as the cultivation of virgin land in new countries, and the great cheapening of transportation by the use of steam. It is, after all, perfectly evident that the earth cannot provide food for an *unlimited* number of people; the law of diminishing returns will sooner or later give rise to a serious problem of population.

No speculation concerning the economic future of mankind can ever be anything more than what Nitti cleverly calls a sort of demographic eschatology without scientific value. Yet the following considerations are perhaps of a nature to reassure us concerning the economic destiny of our race: —

(1) Statistics prove that the birth-rate is lower among the rich than among the poor, and that the birth-rate *tends to decrease with the growth of prosperity*. The rise of a multitude of new wants probably diminishes the intensity of sexual appetite, which, next to food, is the principal desire

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[1] See page 11, note.

of the poorer classes. It is therefore not unlikely that the increase of wealth among all classes will result in a decrease in the birth-rate. Indeed, such a decrease is already perceptible in almost all countries.

(2) Statistics also appear to show that the birth-rate is lower in *democratic* communities than in others. Among the native-born population of the United States, and, strangely enough, in Australia also, the birth-rate has fallen as low as in France. Perhaps the cause of this lies in the fact that in such communities as these the opportunities for social advancement are considerably curtailed whenever a person is hampered by a large family. Dumont calls this fact *the law of capillarity*. It influences women as well as men. The woman's rights movement, which is simply one aspect of modern democratic thought, tends to diminish the importance of the natural function of women as wives and mothers, by opening up new pursuits and new social functions.

(3) Biology teaches that in general the fecundity of a species is inversely proportionate to the *development of the individual*, the inferior animals being much more prolific than the superior animals, especially man. As this law seems to be due to a sort of physiological antagonism or incompatibility between sexual activity and cerebral activity, it is reasonable to hope that the fecundity of the human race will diminish in proportion to the intellectual and moral development of individuals, especially of women.[1]

(4) The physiological laws of the variety, limitation, and substitution of wants (see pages 40 ff.) suggest the possibility of satisfying an increasing number of wants; for although nature provides us with only a limited quantity of each kind of wealth, it is easy to conceive of an unlimited number of new wants and new combinations of wants, so that the possibilities of our development in this direction are limitless. The need for food, for example, will of course never

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[1] Consult "The Evolution of Sex," by Patrick Geddes, Chap. XX, and Nitti, "Population."

be replaced by another want, but the need for a particular kind of food may always be replaced by the need for some other kind of food. If men had to live on wheat alone, there would sooner or later not be enough of it; but as they are acquiring the habit of eating less of it and consuming in its stead an increasing variety of other aliments, and as new varieties of food are constantly being invented, there is no reason for thinking that we shall ever reach the limit of our food supply.

CHAPTER I — SPENDING

I. Whether spending helps Business

We hear nothing more frequently than the statement that "spending promotes business." Hence public opinion is very indulgent, even sympathetic, toward all expenditure, even though it partakes of wastefulness. A man may break all the things he cares to, provided he pays for them. Innumerable moralists and dramatists have pitilessly ridiculed the miser, while making almost a hero of the spendthrift. The man who saves is little loved by his neighbors, and incurs the risk of being regarded as a public enemy; whereas the man who spends his money, even though he squanders it in riotous living, generally enjoys a considerable degree of popularity. One may admit that the spendthrift or the drunkard acts foolishly by emptying his purse or ruining his health; in which case, so much the worse for him. But at all events, his misfortune is the advantage of others, — of the merchants, laborers, and producers who receive his money and profit thereby.

Certainly money that is spent, *i.e.* used in making purchases, benefits those that receive it. It enables them to continue and expand their business. But Bastiat long ago pointed out that this money would have been expended anyway, for the simple reason that money can be used in no other way, save for hoarding; and not only is the amount of wealth that is hoarded comparatively small, but it is not destined to be hoarded *forever*. Spending is simply a transfer of money, the removal of wealth from one branch of production to another; it results in *the application of labor and capital to other branches of production.*

It must not be supposed that spending or consumption is a matter of indifference from the economic point of view. On the contrary, it is the most important of all economic operations. Spending is beneficial when it turns capital and labor from relatively unproductive channels into those that are more productive; if it does the opposite, it is economically harmful. By means of spending, the rich man, even though he lives entirely on his income, exerts a great influence on productive activity. The productive factors,—land, labor, and capital,—are in his control. Like the centurion in the gospel, when he says to one "Come," he comes, and to another "Go," he goes. This commanding power is precisely what imposes especial responsibilities and unusual duties.

But we are mistaken when we believe:—

(1) That because only spending encourages production, spending is *more useful than saving.*

We shall see that saving also leads to consumption,—to spending. Money that is saved is always ultimately spent for some purpose. Only, instead of being spent by its owner, it is, perhaps, spent by those who received it from him as borrowers, as laborers, or as sellers of goods. What does it matter, from the standpoint of social production, whether money be spent by me or by another person?

The above fallacy is due to the fact that consumption is the purpose, justification, and ultimate goal of all production. When men cease to consume, they will also cease to produce; when they no longer need bread to eat, they will cease sowing wheat. But to argue that therefore consumption is the efficient cause of production, or that consumption necessarily means production, is to deduce an absurdity from an axiomatic truth. The three factors of production are already familiar to us,—land, labor, and capital,—and it is perfectly evident that consumption cannot create or increase any one of them. Nay, consumption constantly tends to undo the work of these factors and to decrease the supply which they store up. If the supply of accumulated wealth were increased by a constant influx of commodities so that the more we took from it the more would be added, the error which consists in believing that increased consumption means increased production might be pardonable. But such is not the case. No one would dare maintain that the more apples we pick, the more will grow; or that the more fish we catch, the more the sea will provide; or that the more wood we burn, the thicker the forest will grow.

(2) That spending is always an advantage, even though it involves the *useless destruction of wealth.*

This popular misconception is defended by the assertion that the destruction of wealth, although it may necessitate replacing the wealth that was destroyed, furnishes additional work for laborers and new opportunities for capitalists. Many people, after reading of a fire, console themselves with the thought that it will furnish builders with work. Undoubtedly, the money that is spent for any purpose whatsoever is not lost; but the house that is burnt is really lost, and there is no gain to compensate for the loss. Builders, to be sure, may rejoice, but not society as a whole. The money (or the capital, labor, and material) that is used to build another house would have been used anyway. The fire has necessitated doing again what was already done once. There has, in fact, been an expenditure of labor and material sufficient to build two houses. Yet because of the fire we have but one; the other is irretrievably lost.[1]

To show the absurdity of this argument, moreover, let us carry it further. If it be based on sound reasoning, we must regret that things are not destroyed ten times as quickly and easily as they are: that clothes last longer than a week, that houses are not destroyed every ten years by means of earthquakes, that war does not more frequently reduce our national wealth, and that we do not die sooner, — since the rapid succession of human generations also involves a great consumption of wealth!

[1] Consult Bastiat's celebrated essay on "La Vitre Cassée."

II. Luxury

In its ordinary use the word "luxury" means the *gratification of a superfluous want.* This definition does not imply the condemnation of luxury, for, as Voltaire said, the superfluous is exceedingly necessary. We may properly wish that everybody, even the poorest people, might have a little of the superfluous, and consequently a little luxury. Nature herself furnishes examples of magnificent and sometimes extravagant luxury, in the way she decorates the petals of flowers, the wings of butterflies, and the bodies of small insects. Again, history teaches us that every new want was at first regarded as superfluous. New wants, in truth, are superfluous; because, first, no one has previously felt them, and, second, because to satisfy them probably means considerable labor, inasmuch as the work of providing for them is new and therefore somewhat difficult. The linen we wear, for instance, is now regarded as an absolutely indispensable part of our apparel; to say that a man is reduced to his last shirt, is a proverbial way of expressing his dire poverty. There have been epochs, however, when a shirt was regarded unquestionably as an object of luxury, and fit for a royal present. The same may be said of thousands of other objects. If, therefore, we had been prevailed upon from the beginning to accept the ascetic doctrine, and suppressed all desire for luxuries, we should have prevented the development of all those wants that constitute civilization, and we should to-day still be living as our ancestors lived in the stone

Luxury is condemnable only when it degenerates into wastefulness. But how shall we recognize wastefulness? This is an interesting, although difficult, question.

[1] Forks, watches, bicycles, are examples of such objects as these, originally regarded as luxuries. As for forks, it is by no means certain that they are preferable to the chop-sticks of the Chinese and Japanese, which are better adapted to the need of cleanliness and elegance, and cost much less.

In answering it, public opinion generally considers only the *amount* spent. But the economist must abandon this point of view entirely. When a person spends thousands of dollars to purchase bric-a-brac, or when he pays his cook the salary of a general, he may be culpable from the private point of view of his own family; but from the economic standpoint of society as a whole, the money spent is simply transferred from his pockets to those of the persons whose goods or services he buys.

From the point of view of society, the sole criterion is *not the amount of money spent, but the quantity of wealth or labor consumed* in the satisfaction of a given want. It must always be borne in mind that the sum total of existing wealth is insufficient to satisfy even the elementary wants of the greater part of mankind, and that the productive forces which provide and increase our stock of wealth, — land, labor, and capital, — are all limited in quantity. Whence it is evidently an unquestionable duty not to apply to the satisfaction of a superfluous want too large a share of our productive forces or of the wealth at our disposal. All this is a problem of proportion. Unjustifiable luxury or prodigality consists in a *disproportion between the amount of social labor consumed, and the degree of individual satisfaction obtained.* A few examples will make this clear.

The desire for flowers, entirely unknown to our ancestors, is certainly a luxury in the proper sense of the word, inasmuch as flowers are by no means necessities; yet they are a charming, elevating luxury, and one that is accessible even to the poor. But when we decorate our drawing-rooms with orchids brought from distant countries at an expense of thousands of dollars and perhaps at the cost of human life, or with blue dahlias raised in hot-houses which required more coal than would have provided warmth for ten families during the winter, this kind of luxury falls under the second definition that we have given.

For a lady to wear a dress that is elegantly made, is not necessarily objectionable, although the dress may have cost several hundred dollars; for as we have said, we are not concerned with the sum spent (that simply passes from one person to another) but with the amount of material or labor involved. It is not probable that this dress required more cloth or much more labor than an ordinary dress. But if, on the other hand, a lady has her dress covered with several yards of lace, representing many years of a working-woman's toil, we may rightfully raise objections on both moral and economic grounds.[1]

It is perhaps justifiable for an English nobleman to spend several millions in the purchase of paintings for his private gallery, — although it would be better to give them to a public museum. But when, like the rough barons of the Middle Ages, he consumes enough meat and wine at his meal to provide for twenty ordinary mortals, or when, in order to offer the pleasures of the chase to his guests, he converts into hunting grounds land that would have produced food for hundreds of human beings, his luxury is not justifiable.

In all these examples the consumer of the luxury does not contribute to social progress.[2]

It must not be supposed that the deplorable effects of luxury which wastes labor and wealth are imputable only to the rich. There are luxuries among the poor which are no less detrimental to society. The sums that the poor spend daily for drink amount to much more than the value of the pearl which Cleopatra threw into her wine-cup, and which is supposed to have cost 300,000 sesterces. The queen, moreover, was not poisoned by it.[1]

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[1] M. Leroy-Beaulieu says that perhaps a man has saved millions in order that his wife may wear laces and jewellery. This is possible. But if he has earned these millions only to employ them in this manner, of what use has he been to society?

[2] The pro and con of the matter have been discussed ever since antiquity. For the arguments against luxury, consult Laveleye's "Le Luxe"; for the opposite argument, Leroy-Beaulieu's "Traité d'Économie Politique." M. Baudrillart has given a mass of information in four volumes entitled "Histoire du Luxe." It is well known that in Antiquity and in the Middle Ages (and some of our colonies) *sumptuary laws* were passed, prohibiting expenditure for luxury. Cf. Roscher's "Political Economy."

What should be said of art? Is it a luxury? This is indeed the general opinion, and economists are somewhat at a loss how to justify art. If, however, we recall the definition we have given of luxury, we shall see that it implies no condemnation of art, even though we regard it from the purely economic point of view. Genuine art does not require an amount of labor disproportionate to the result. Quite the contrary! A piece of marble and a chisel, a square yard or more of canvas and a few tubes of paint, added to a few hours of labor, are sufficient to provide exquisite enjoyment that may be repeated throughout innumerable generations of mankind. If a lover of art spends half a million for one of Raphael's paintings, this may be a folly from the purely personal point of view. But from the social point of view the question is: Did the painting cost the artist an amount of labor or of capital disproportionate to the pleasure it provides? Certainly not. Art is characterized by the production of great effects through very simple means; and this is precisely the contrary of luxury.[1]

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[1] Drunkenness is a terrible form of luxury, more ruinous than any other, at least for the poorer classes of society — most other luxuries being inaccessible to them. According to the United States Census of 1900, the capital invested in the production of all kinds of alcoholic liquors was over $457,000,000, and the annual product was valued at about $340,000,000. The materials used were valued at $70,000,000, and the average number of persons employed the whole census year was over 52,000. The total consumption in this country for the year 1900, taking into account exports and imports, was 1,322,166,685 gallons, or 17.3 gallons per capita. It is probable that not more than 1 per cent of this was consumed in the arts, manufactures, and for medicinal purposes. Carroll D. Wright estimates that the 161,483 places or establishments in the United States which pay a federal tax to engage in the traffic have a capital of nearly $960,000,000, in the hands of 191,000 proprietors or firm members, with nearly 242,000 employees.

But the direct economic expenditure of labor and capital is insignificant when we consider the incalculable loss through disease, incapacity for work, insanity, crime, and suicide due to drink. Intemperance is one of the gravest social problems and has been made the subject of numerous investigations. Probably the two most important remedies proposed are: —

(1) Private initiative and propaganda by means of temperance societies, such as have succeeded in reducing the use of alcohol in the United States and England. In Sweden and Norway, private societies with state assistance have taken the place of the ordinary saloon-keepers; there are no saloons near factories, and liquors are not sold by the glass, but only by the quart.

(2) Government intervention, limiting the number of saloons or forbidding the rum-traffic entirely. Sometimes the government itself, as in Russia and Switzerland, has a monopoly of the trade in alcohol, in order to restrict its sale or at least to prevent adulteration. In three states of the Union the laws prohibit the sale of intoxicating drinks—Kansas, Maine, and North Dakota. (New Hampshire and Vermont have recently abandoned prohibition in favor of local option.) In most of the states each local community decides the question whether it will permit the sale or not; this is called *local option*. The Norwegian or *Gothenburg system* of monopoly under government control has been adopted in a modified form in South Carolina.

(See Carroll D. Wright's "Practical Sociology," 2d edition, Chapter 23.)

III. Consumers' Associations

Men generally do not like to deprive themselves of anything useful; they would fain find some means of reducing their expenses and "putting aside" a larger share of their income, without reducing the quantity or lowering the quality of the objects they consume. This apparent impossibility is accomplished by various kinds of associations, some of which are exceedingly important.

(1) The *common household.* When several persons join together in the use of one house and garden, or for the common enjoyment of the same imperishable goods, or for the common hire of a cook, they can certainly obtain the same gratification with less expense. The economy of life in convents, military barracks, and boarding-houses is proof enough.

This economy is due to the same causes that make large-scale production cheaper than isolated, small-scale production, — causes which (see page 161) find a similar application with reference to consumption. For this reason communists have held that the present method of living in small, separate family groups, is extremely wasteful of wealth and energy. Each separate family now has, or endeavors to have, its own house, its own garden, its own domestic servants, its own horses and carriages, although it would be to every one's infinite advantage to constitute larger groups of consumers which could make better use of all their opportunities and economize an enormous amount of wealth and labor. Consider the great waste of food and fuel alone when each of the innumerable small families in the same town provides its own meals, buys its cooking utensils, stoves, etc., and hires a cook. Would it not be infinitely better, cheaper, and simpler, to group a score or more families in a large, well-equipped apartment-house, having but one set of cooking utensils, a better equipment than any separate family could have, and employing enough expert servants to do the work better than before? It is maintained that this would be an almost incalculable saving of energy and wealth, a great step forward, and an unquestionable benefit for humanity as a whole. No one has developed this scheme more brilliantly or in greater detail than Fourier, in describing his "phalanstery."

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[1] In another sense, however, it may be said that art is a luxury. Every important art always presupposes the waste of a great quantity of productive energy, inasmuch as there is only one successful artist for a hundred whose time and labor are spent uselessly. But the same is true of all careers that appeal to human vanity, —politics, for example.

The system of living together, although it offers the incontestable advantage of effecting a great saving, unfortunately suppresses family life by destroying the home, and the home has ever been one of the most important wants of man. Human nature has always found something repugnant in group-life and even in "boarding" in common. Nor must we lose sight of the fact that the real aim of wealth is to provide enjoyment. Ought we to sacrifice all the blessings of family intimacy, the happiness and the moral influences of home life, simply in order to save part of our expenditure?

(2) *Purchase in common.* Without binding ourselves to a life in common, or forming the habit of sleeping under the

same roof and eating at the same table, many of the advantages of living together may be realized, at least in part, by coöperative associations in which a number of persons unite to make their purchases jointly, and thus obtain the advantages of buying at wholesale rates. Robert Owen appears to have been the inventor of this kind of association. But the development of coöperative consumption is most closely connected with the history of the celebrated Rochdale Equitable Pioneers, founded in 1844. More than one-fifth of the whole British population now purchases its goods in part or entirely at the stores of coöperative associations. The members of these associations meet annually in a congress, publish periodicals and newspapers, and constitute a power in the nation. Most of the local associations are grouped into a large federation, called the Coöperative Union, which has its own wholesale society, transacting an enormous amount of business each year. The English Wholesale Society in 1902 sold $92,000,000 worth of goods, and the Scottish Wholesale Society sold over $30,000,000 worth; about $20,000,000 of the goods thus sold were manufactured by the wholesale societies themselves. These societies, which own a fleet of merchant vessels that go to all parts of the world to purchase goods, do not limit themselves entirely to commerce, but engage in production and banking.[1] Coöperative consumption (or, as it is sometimes called, distributive coöperation) is carried on in many other countries, but usually on a smaller scale than in Great Britain. There are probably about 200 retail "coöperative stores" in the United States, where the whole coöperative movement is now developing with surprising rapidity.

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[1] See the annual reports of the Congress of the Coöperative Union, published by the secretary, J. C. Gray. An interesting article on coöperation in Italy may be found in the 1902 Annual of the Coöperative Wholesale Societies, published at Manchester. A brief but fairly complete account of coöperation and kindred movements for social betterment may be found in Gide's report on "Économie Sociale" at the Paris Exposition of 1900 (Paris, Imprimerie Nationale, 1902). Consult also: Hubert Valleroux, "La Çoöperation," Paris, 1904; and the articles by Professor F. Parsons in the *Arena* for July and August, 1903.

The well-known Belgian coöperative society, "Vooruit," of Ghent, devotes the greater part of its profits to socialistic propaganda, and the share of profits distributed to the members is not paid in cash, but in coupons, good for merchandise at the coöperative stores.

Most consumers' associations are patterned after the so-called Rochdale type, which is characterized by these features: — (*a*) Sales for cash only; (*b*) sale not at the cost price, but at the customary retail price, thus bringing a profit; (*c*) the distribution of a large part of profits among members, according to the amount of purchases they have made (and not according to the capital they have contributed, for which a fixed rate of interest is paid); (*d*) the use of a certain part of the profits for social and educational purposes.

The direct advantages of these associations are as follows: —

(1) An *economy* in the cost of living. When coöperative societies sell goods at cost, the saving is obvious and immediate. When the Rochdale system is applied, the profits are returned at the end of each year or six months, and thus the members may be regarded as saving money unconsciously.

(2) Putting a stop to the *adulteration of goods*, and thus providing more healthful and more abundant food.

(3) The abolition of *advertising* and all forms of commercial falsehood and trickery, thus raising the ethical standard of business life.

But should the coöperative movement continue to develop in the future as rapidly as it has during the past half century, its ultimate effects will amount to nothing less than a transformation of economic society, characterized especially by the following features: —

(1) The gradual elimination of traders and the class of business intermediaries.

(2) To the extent that consumers' societies devote themselves to the production of whatever goods they require, there will be a decrease in the number and importance of individual concerns and of stock companies, and a falling off

in the profits and dividends which these concerns and companies are able to pay.

(3) A *decrease in the number of large fortunes* and an increase in the number of small ones built up by coöperative saving. Coöperation will accomplish this by doing away with the causes to which large incomes and great fortunes are due.

(4) The perfect *adjustment of production and distribution*, and the suppression of crises and of the loss of work by large numbers of laborers affected by these crises. Coöperation will accomplish this eminently desirable result simply by producing only the amount of goods required by the organized consumers.

IV. The Cost of Housing

Of all expenditures, that for shelter is entitled to special consideration, not only because it tends to absorb an increasing share of the family income, but also because the home is, from the social point of view, perhaps the most important human want.

In antiquity, the custom of renting a home was unknown; the home was not only the place of residence, but also the altar of the household gods, and every person, rich or poor, had a home of his own. To-day, however, the economic conditions of life compel men to live like nomads; they usually do not stay where they were born, and they live for the most part in hired apartments. All the social, economic, and political influences that prompt men to agglomerate in large cities,—the tendency toward centralized administration, production on a large scale, the growth of railroads, city amusements and dissipations,—have caused a steady increase in the cost of renting houses and apartments. This is very profitable to urban property-owners, but detrimental to the general public.[1]

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[1] In 1790 there were six cities in the United States with a total population of 131,472, or 3.4 per cent of the entire population; in 1850 there were 8

This state of affairs is not particularly disturbing for the rich, but it is a serious matter for the poor. Higher rents, which oblige the working people to congregate in miserable quarters, produce most deplorable results from the hygienic as well as the moral point of view. Most of the vices that afflict the working population,—the loosening of family ties, the habit of frequenting rumshops, the debauchery of children, and even such terrible social evils as high death-rates and epidemics,—are due especially to this cause. It is, moreover, impossible to conceive of normal human existence without a certain degree of home comfort.

The only effectual remedy for such evils would be a cessation of the growth of cities, and a return to rural life on the part of those who have abandoned it. But there are no signs pointing to such a reaction. In many of our large cities, however, we may observe the beginning of a centrifugal movement that is carrying the people away from the congested parts of the city. Modern methods of cheap and rapid local transportation have led people to choose homes not in the centres of cities, but in the outskirts and the suburban districts; the central parts are almost entirely taken up by business houses and offices. Suburban homes are not only cheaper but more healthful.[1]

Meanwhile, another remedy — and a most practical one — consists in the construction of houses built to be rented to workmen, or built with the intention that they shall some day become the laborers' property by the payment of small instalments. Six somewhat different schemes have been suggested for accomplishing this: —

(1) Coöperative building societies formed by the workers

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cities with a total of nearly 3,000,000, or 12½ per cent of the whole population. The census of 1900 shows 545 cities (*i.e.* incorporated places with a population of at least 8000) having a total of nearly 25,000,000 inhabitants, or 33.1 per cent of the entire population.

[1] Some interesting figures, showing that the problem of the "slums" (the dense, unhealthful city quarters of the laboring population) is becoming less acute, are given in Wright's "Practical Sociology" (2d ed., 1902).

themselves. (We have given an account of building and loan associations on page 397.) These societies are numerous in England and the United States. In the city of Philadelphia, sometimes called the city of homes, these societies have built more than 60,000 houses, each inhabited by a working-man's family.

(2) Associations of a half-philanthropic, half-financial nature, which construct comfortable, salubrious homes for workmen, and which are satisfied with only a small profit on their investment, — say 3 or 4 per cent. Several large tenement houses in New York have been built upon this plan recently.[1]

(3) The establishment of perpetual funds to be used for the construction of working-men's homes. The rent of these homes is then employed to construct still others, so that the results of the scheme increase by a sort of geometrical progression. An example of this is the celebrated Peabody Fund in London, which is thirty years old, and which now provides homes for 20,000 tenants, living in 5073 apartments.

(4) The construction of houses by coöperative consumers' societies for their own members. As these societies aim to provide their members with all the necessaries of life, why should they not also provide homes? English coöperative societies have already built more than 24,000.

(5) The construction of houses by municipalities. Berne, Glasgow, and other large cities have undertaken to do this. In Germany, the central government gives bounties to societies for building working-men's homes.[2]

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[1] This category should also include laborers' houses built by large employers or manufacturing concerns for their employees in the vicinity of their place of work. Many concerns which are situated far from the large cities are obliged to do this to provide lodging for their workers. These houses are usually rented for a merely nominal sum. Socialists and partisans of labor detest this arrangement, because the consequent dependence of the laborer on his employer, they hold, deprives him of his independence and reduces him practically to serfdom.

[2] The collectivists would not only require the state or the city government to build houses for the workers, but to take possession (with or without

(6) The hire, by philanthropic societies, of homes already in existence, with a view to improving and sub-letting them to laborers on favorable terms; and providing, so to speak, for the economic, æsthetic, and moral education of those that inhabit them. This system, which is closely associated with the name of Miss Octavia Hill, who has applied it in London for twenty-five years, is designed primarily for the poorest classes of society. Miss Hill has pertinently remarked that there is no use attempting to make the poor the owners or even the tenants of model homes unless we have previously changed their habits of life, given them the sense of cleanliness and comfort, and taught them to appreciate a home.

The first five schemes mentioned above aim either to make the workman the owner of his home, or, merely a tenant. Which aim is the better? The English and American laborer much prefers having a home of his own; the French workman cares less about it. The ownership of a house, in spite of its advantages from the moral and economic point of view, involves certain inconveniences for the workman. When he is tied down to a given locality, it is difficult, if not impossible, for him to move from one place to another, and to offer his labor in the market where it may be in greatest demand; he is more dependent on his employer than is otherwise the case.

indemnification) of all houses, and permit the people to live in them either at cost or gratuitously. This would be the system of nationalization applied to urban property.

In generalizing this system of nationalization, the following difficulties present themselves: —

(*a*) If the government furnished homes free of charge, it would probably soon be bankrupt. This arrangement, moreover, would probably aggravate the present unhealthful tendency toward the too rapid growth of cities. For if the government undertook to provide a home for everybody in the cities, few people would be willing to live in the country.

(*b*) If, on the other hand, the government obliged its tenants to pay their rent punctually, and should attempt to expulse them in case of their failure to pay, the government would soon become fully as unpopular as the present property-owners, and would find it difficult to collect rents.

V. Absenteeism

The term *absenteeism* is used to designate the custom among wealthy property-owners of living abroad, or at least away from their estates. This custom gives rise to the question whether undesirable consequences for the home country, and, *vice versa*, desirable effects for the places in which they live, do not result therefrom. It is an extremely complex question, and we can here indicate only some of its main features.

From the moral point of view absenteeism is severely condemned. But it is necessary to make a distinction. The condemnation is well founded as regards landed proprietors, because the possession of land is, as we have seen, a social function; and a social function cannot properly be performed by proxy. We may even set up the universal rule that all social duties should be performed personally, and not by proxy. Property in land, justifiable upon grounds of public utility, has no just foundation whatever when the owner does nothing but collect rents, and lives at a distance; his very absence proves that he leads the life of a parasite. Moreover, aside from this theoretical consideration, experience has frequently demonstrated (in Ireland, for example) that the absenteeism of landowners who delegate their powers to agents or middlemen involves the ruin both of the farmers and of agriculture itself.

But the problem of absenteeism is a somewhat different one in the case of capitalists; their social function consists in the accumulation and investment of capital, and does not bind them to one place more closely than to another. In fact, a certain degree of cosmopolitanism is quite useful in helping one to invest money most intelligently and to keep track of one's investments.

From the purely economic point of view, absenteeism is condemned because, it is said, the man who spends his money away from home does not enable his neighbors to profit by his expenditure, but helps foreigners or strangers to profit thereby. The sojourn of rich foreigners in Switzerland, in Italy, at Paris, and on the Riviera, is regarded as a source of wealth to the population of these places. Now it is evident that if the residence of rich foreigners means profit to the places in which they reside, their absence from home must involve an equal loss to their native countries. What a man spends abroad cannot be spent or invested at home.

It may, however, be held that when English travellers in Switzerland, for example, spend two million dollars in that country, they consume Swiss products of a value exactly equivalent to the sum spent, and that this English money will be used later for the purchase of goods imported into Switzerland from England (according to the economic law explained on page 301, note 1); so that after all there has been simply an exchange of English goods for Swiss goods. This objection, however, is not valid. The sum paid by English residents is probably much greater than the value of the goods or services received in exchange for it, for the following two reasons: — (*a*) Foreigners generally pay more for things than they are really worth. Although the practice is unfair, it is well known that in nearly all places frequented by foreigners there are two prices for goods, — one price for natives and one for foreign purchasers. (*b*) Very often the foreigner pays for the use of wealth that is not really of a consumable or destructible nature. When a traveller, in renting a villa for the season, or taking a guide for the day, buys the right to enjoy a beautiful climate, to breathe pure air, or to have a view of the sea or the mountains, he deducts nothing from the wealth of the country; he pays a rent similar to the rent paid to every one having the monopoly of a natural advantage. Why, indeed, should not the scenery of Switzerland, the azure seas of the Riviera, the waterfalls of Norway, and the historical associations which cling to the cities of Italy, represent wealth for these countries quite as truly as coal mines or petroleum wells?

The same thing, moreover, is true for individuals. If I have some sort of natural curiosity, a grotto, or a ruin, in my garden, and I ask each visitor to pay a quarter to see it, obviously my income is increased by what these visitors pay for admission.

Classical economists may reply that the ultimate result of such expenditure is merely a displacement of money, its simple transfer from one country, or one person, to another; we have seen with what superb indifference these economists regard the increase or decrease of the quantity of money. But have we not frequently had occasion to note that the amount of money in a country is not a matter of indifference? (See pages 222 and 298.)

CHAPTER II—SAVING

I. The Conditions Necessary for Saving

SAVING, we have already said, is really one kind of consumption; it is *postponed* consumption. Man, instead of satisfying only his immediate needs, thinks of his future wants and "puts something aside" for to-morrow, or for his old age, or for his children.

In ordinary speech, and even in the language of economists, saving is generally allied with *investment*, *i.e.* the productive employment of savings. But the two acts are entirely independent. Saving is a distinct operation with a purpose of its own; viz., to provide for the satisfaction of future wants. Although popular opinion regards it with little favor and calls it *hoarding*, saving is an economic act of considerable importance. Even some animals, of which the ant offers a familiar example, practise saving (but not investment). Like work and the division of labor, it is a variety of economic activity not confined to mankind, but familiar to animals also; it may be called a *natural* economic function. Nevertheless, we must not believe that saving is spontaneous and takes place of its own accord. On the contrary, several by no means simple conditions must be fulfilled before saving can take place among mankind.

(1) As a subjective condition to saving there must be a certain degree of *foresight*, *i.e.* the peculiar faculty which consists in feeling a future want as though it were present. The man who intends to save puts two wants in the balance, —a *present* want which he must forego, and a *future* want for which he desires to provide. The present want, for instance, is the desire to consume more food; the future want, perhaps, is a desire to make provision for a comfortable old

age. On the one hand, a man is restrained from saving by the thought of the present sacrifice that it involves. On the other hand, he is influenced by the advantage that he expects to receive from saving. His choice oscillates between two opposing influences, and according to the strength of the one or the other his conduct is determined. (See page 82.) Note that the present want is a reality; it is felt *now*. But the future want is largely an abstraction, a product of the imagination. Saving therefore presupposes a certain degree of mental development and the presence of those intellectual qualities which make abstract thought possible. And these qualities, we must remember, are primarily the result of advanced civilization.

Our education, as well as the present organization of society, accustom us to think constantly of the future. The habit of constantly looking forward is a distinctive characteristic of modern civilization. Scientists seek to penetrate the secrets of future ages; statesmen look anxiously forward to the morrow; business men try to gauge the future standing of the market, and involve themselves in transactions the outcome of which will long remain unknown; shopkeepers prepare to meet the obligations that fall due months and years hence. All of us are more or less concerned for the future and attempt to make some reckoning of what this unknown quantity is. The intellectual effort which such an attitude involves is impossible for the savage, who is conscious only of present needs; who, as Montesquieu declared, "cuts down the tree to get the fruit." Such intellectual effort, moreover, is difficult even for those of our own fellow-citizens whose social condition and whose mental habits resemble those of primitive mankind, and who live, as they do, from hand to mouth. Savages, children, paupers, vagabonds, are all improvident, and for precisely the same reasons.

(2) As an objective condition to saving, it must be *possible to preserve the commodity saved*. Under ordinary, natural circumstances, this condition is rarely fulfilled. There are few

objects of consumption the use of which can be postponed without danger of deterioration or total loss of utility and value. Things often deteriorate quite as rapidly when they are not in use as when they are used. Furniture and clothes wear out and fade; linen tears and grows yellow, even in the closet; iron rusts; food decays or is devoured by insects; even wine, after improving with years, later loses its quality. The grain stored away by the ant (although grain is easily stored and partly for this reason is an important kind of wealth), and the nuts saved by squirrels, cannot be saved longer than a year except with great care.

Until money, or at least some precious metal, was used as a store of value, saving was very narrowly limited by the lack of a suitable object to save. The invention of money facilitated saving, and subsequently made possible the marvellous enterprises of modern times. Gold and silver are, as we have seen, nearly the only immutable substances. Although, to be sure, they are not themselves objects of consumption, they may at any time be exchanged for objects of consumption. Instead of trying to store up perishable objects, a man (who wants to save) exchanges these objects for money, puts the money in a safe place, and at any subsequent time he or his descendants may exchange this money for whatever kind of wealth they choose. Even when men discover a treasure that has been hidden for centuries, this treasure may be regarded as a power to consume, the exercise of which has been long *postponed*, but which is finally employed by the fortunate finders.

The invention of credit, furthermore, provided mankind with an instrument for saving that is more marvellous even than money. Here, let us say, is a man with a fortune of $1000, which, if he chooses, he may consume at once. But he prefers to postpone its consumption. The fact that he does not now care to make use of his right to consume does not destroy or curtail this right; its exercise is simply postponed. At any time in the future he or his descendants still possess the right to consume an equivalent amount of wealth. They cannot, of course, consume the wealth that was originally created, for that has been consumed by others.

(3) Before a man can save, his labor must yield *more than the necessaries of life*. It is often unwise to ignore future wants and care only for the present; but it is madness, on the other hand, to sacrifice the present for the future. To run the risk of dying now of hunger, for fear of famishing ten or twenty years hence, is worse than miserly; it is, in fact, one of the traits that make avarice so ridiculous and contemptible. We shall see that to make too great present sacrifices for the sake of future consumption is not only contrary to the interest of the individual, but also that of society as a whole. (See page 695.)

The man who has just enough to live cannot have any surplus for saving; for him it would be detrimental and even dangerous to save, since saving would mean to forego some essential want. But for the man who has a superabundance of wealth, saving can hardly be regarded as a sacrifice;[1] it may even become a necessity, since man's power to consume is limited, even though he be a second Gargantua. Our wants and even our desires have a limit, which nature has indicated by the feeling of satiety. (See page 43.)

(4) Finally, there must be *institutions or devices for facilitating saving*, or at least for making it possible. These means or institutions may be nothing more than barns for saving wheat, cellars for storing wine, or safes for keeping money. Modern society, however, has done more than this

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[1] Economists have sometimes emphasized the sacrifice involved in saving and called it *abstinence*. Senior regards abstinence as the source of capital. This theory exaggerates the moral value of saving. Socialists, on the other hand, ridicule this so-called abstinence and the privations which the capitalist is supposed to undergo. Lassalle, particularly, attacked this doctrine with keen satire. Both the advocates of the theory and its socialistic opponents have an ultimate object in view: the former, to justify the reward of capital; the latter, to discredit it. In reality both are right in part; the sacrifice involved in saving varies from infinity to zero.

to encourage and facilitate saving, and has created various institutions which we shall discuss in the following section.[1]

II. Institutions to Facilitate Saving

In all civilized countries there are many ingenious institutions and devices for facilitating saving.

(1) The best known of these institutions are *savings banks*, properly so called. They are intended to encourage saving by taking care of the money saved. The service they render the depositor consists in keeping his money safe from robbers and safe from himself. By keeping a man's money and preventing him from yielding too easily to the temptation to spend it, the savings bank performs an important function. All children are familiar with the so-called "penny bank," consisting usually of an earthenware jug into which coins are dropped through a narrow opening. To get possession of the contents, the child must break the jug, and this slight obstacle is supposed to give enough time for reflection, and to enable the child to resist the temptation to squander the contents.

The savings bank is practically the same thing. The amount deposited in the bank is, of course, at the disposal of the owner. Yet it is no longer in his pockets, or in his immediate possession; and in order to obtain it he must comply with certain formalities which involve somewhat more time and trouble than breaking the "penny bank."

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[1] The question is sometimes asked whether or not another condition is also requisite; namely, the payment of interest. Most economic treatises insist that it *is* a necessary condition for saving. We regard this as a mistake. Interest must be paid to give rise to *investment*, as we shall explain later; but *saving* is not dependent on the payment of interest. The simple desire to provide for future wants or for unforeseen wants is sufficient to give rise to saving. It may even be maintained, without being paradoxical, that if investment at interest ever became impossible, saving or hoarding would not be done away with, but would be greatly stimulated. Take a man who requires $5000 a year to live satisfactorily. If the current rate of interest is five per cent, he will have to save only $100,000 in order to live on an independent income. But if it became impossible for him to invest his savings at interest, he would be anxious to store up as much capital as possible for future use.

In order to encourage saving, these banks pay a small interest on deposits; but this interest must be regarded merely as a sort of premium on saving, a kind of stimulus, and should not be too high. The business of the savings bank is not to furnish an opportunity for *investing* capital, but to enable people to put aside a little money, and thus to *create* capital. If, when this capital has been amassed, the depositor wants to invest it, *i.e.* make it yield interest, he may withdraw it from the bank (the rôle of the savings bank having been performed), and intrust it to other institutions, such as those already referred to in the sections on credit and banks.

Formerly all savings banks were private institutions; but to-day, in many countries, they are sometimes founded by the government. France and England, for instance, have savings banks connected with their postal system; innumerable post-offices throughout the country offer opportunity and encouragement for putting aside small sums of money. The governmental savings bank of Vienna, Austria, is celebrated for its perfect mechanism and economical administration. In France, the private savings banks are practically governmental concerns, for they are obliged to deposit their funds in the Public Treasury.

(2) *Mutual providential societies* consist of persons paying monthly dues; at the end of a certain period, say twenty years, the accumulated capital is divided among the members. Men can save more when they are organized than when they are isolated, because the rule of monthly payments makes saving a habit and a necessity, and because organizations can make better use of the accumulated funds than a single individual. Surviving members, moreover, usually profit by the sums paid by those who die before the funds are divided.

(3) *Consumers' coöperative societies*, although the name implies the intention to consume and not to save, serve also

as savings institutions by removing the obstacle that makes saving so difficult, and which seems nevertheless to be a necessary feature of all saving, viz. abstinence or privation. These societies succeed in solving the apparently insoluble problem of making saving automatic and unconscious. Their plan, which we have already described, is both simple and ingenious. Goods bought at wholesale prices are sold to the members at the customary retail prices, and the profit thus made on the purchases of members is placed, as it were, to their credit. At the end of the year, a proportionate share of the total profits is either paid out to each member, or kept on deposit for him. Thus, if a laborer buys $300 worth of goods in a coöperative store, and the store makes a profit of ten per cent, he may be said to save $30. This saving involves no effort, no abstinence, no restriction in the amount of goods he consumes. He has consumed just as much as before ; he has been provided with goods of better quality ; he has paid no more than these goods would cost elsewhere ; and despite all this he has actually *saved* money. It may be said, moreover, that the more the laborer buys, the greater is the sum he earns for himself ; or, to put it somewhat paradoxically, the more he spends the more he saves !

(4) *Coöperative credit societies*, which are simply popular banks designed to receive money from the people in order to return it to them in the form of loans, serve quite as well for saving money as for lending it ; they have even been called "perfected savings banks." This feature characterizes the German people's banks founded by Schulze-Delitzsch (see page 396) and the Italian people's banks founded by Luzzatti.

III. The Social Utility of Saving

The social usefulness of saving consists in forming, by means of united individual savings, large amounts of capital that can be employed by business enterprises according to their needs. Saving possesses the same utility for society as a whole as for individuals: it provides for future wants. Its utility is almost incalculable, and of such a nature that no progressive nation can do without it. Hence, as saving is useful to a nation, it is the duty of those who can save, to do so. It devolves upon the rich and those that live on independent incomes to save, because they can do it most readily, without foregoing the satisfaction of any legitimate want.

This, however, is not the popular opinion; the general public does not regard with favor the rich who save. Even Montesquieu wrote that "when the rich spend little, the poor die of hunger." But we have already pointed out the current misconceptions with regard to the effects of spending. (See page 671.) The rich man who saves that part of his income which exceeds his legitimate wants, and who applies it productively by investing it, confers a benefit on all; for, as we shall see in discussing investment, he simply transfers his right to consume to the laborers whom he employs with his capital. (See page 698.)

The rich man whose avarice prompts him to neglect the satisfaction of even his necessary wants, and who does not invest his money productively, but *hoards* it in the strictest sense of the term, really harms no one but himself. Such men, moreover, are very rare. Each piece of money that is put aside must be regarded simply as an "order," giving the possessor the right to claim a certain part of existing wealth. (See page 220.) The man who saves declares that for the present he will not claim his share of the social stock of wealth. That is a right which he may exercise at his own pleasure; no one else suffers through his neglect to use it. The share that he might have consumed, and which he abandons, will simply be consumed by others.

It may be asked whether the poor also should not be advised to save. Is not saving more important for them than for the rich? Moralists and economists do indeed give this advice to the poor. But the advice is not always good. We shall not make the customary plea that saving is often impossible. We hold that saving is always possible, even for the poorest people, because the elasticity of human wants is marvellous; wants not only may be increased in number up to infinity, but it is equally true that they may be reduced almost indefinitely. A man having only a pound of bread a day may accustom himself to eating only on alternate days, thus saving half. Do not even the poorest classes spend hundreds of thousands for drink and tobacco? It is certain that they could save this amount, and that they would be better off for doing so.

Notwithstanding this, the advice to the poor to save is not always justified. Whenever saving involves a curtailment of the necessary or even the merely legitimate wants of man, the effect is rather bad than good. It is absurd to sacrifice the present to the future, especially when the present sacrifice is *likely to endanger the future*. Every present expenditure, private or public, which results in the physical or mental development of man, should be sanctioned without hesitation, not only as good in itself, but as *preferable even to saving*. What better use can a man make of wealth than to improve his health or to develop his mind? The use of alcohol and tobacco, to be sure, should be discouraged. But the sums used for these purposes would be better employed at the butcher's, the baker's, and the clothier's, than at the savings bank; for it must be borne in mind that the money spent for drink is not usually taken from the superfluous, but from the necessary expenditure. Good food, salubrious clothing, healthful homes, comfortable furniture, medical care, instructive books, promenades and voyages, exercises and amusements, are not only permissible pleasures; they are wants which should be developed. Their satisfaction constitutes the best investment, because they increase the worth of man and heighten his productiveness.[1]

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[1] Benjamin Franklin said, "Empty your purse into your head; then you can never lose your money, and you will always be sure of a high rate of interest."

Much the same advice may be given to the rich. Although their duty is to save, we do not maintain that saving is their sole or even their principal function. If they saved their entire incomes, and if a spirit of penitence prompted them to live on bread and water, they would be neglecting one of their important social functions, which consists in giving rise to new wants, setting the example of legitimate luxury, and stimulating economic progress by exemplifying the possibilities of human development. It should be remembered, moreover, that aside from personal expenditures there are other socially important and useful ways of spending money. Philanthropic, scientific, artistic, and religious undertakings can be carried on only by the wealthy, and are sometimes more important than saving.

We may therefore say, by way of conclusion, that *saving is a luxury* (however strange the association of these two terms may appear) scarcely accessible to any but rich societies, and confined to those few persons that possess a superabundance of wealth. Statistics show that the countries which accumulate savings are not numerous, and that even in these countries the amount saved rarely exceeds one-tenth of the national income. This fraction, although small, seems to be sufficient; there is no lack of capital available for all kinds of useful or even foolish enterprises.

IV. Investment

In conformity with an old tradition we shall study investment in the same chapter as saving, although in reality investment is an entirely different operation. It is of course true that investment presupposes saving, since we cannot invest unless we have "put something aside"; this is the reason for the close association of the two operations in the mind of the public and even of some economists. Saving and investing are, however, quite distinct. To *save* is always a way of consuming; it is *postponed* consumption, and means that something has been kept for future use. To *invest*, on the other hand, is to transfer to another person one's power to consume. This is usually accomplished by means of money; those to whom the power is transferred use this money productively, generally by employing laborers. To invest is to earn something with our capital, to use our capital productively. Investment, therefore, is not an act of consumption, but of production.

There was a time when investment was difficult, almost impossible, for two reasons: —

(1) Because there was *no opportunity to invest.* At a time when lending money at interest was prohibited, or could be effected only under some disguised form, when the principal borrowers of modern business life — corporations and stock companies — were unknown, and when the renting of real estate was an exceptional transaction, there could be but little investment of money. All that men could do with their savings was to hoard them or purchase land.

(2) Because there was no *security.* Men will not willingly invest their money except in countries possessing good government, good laws, and the habit of commercial honesty; for these are the features which reduce the risk of robbery, invasion, governmental confiscation, and the dishonesty of powerful debtors. The development of investment depends on security, and men will not give up their savings to others for productive consumption, in exchange for a promise to repay, unless there is comparatively little risk of losing them.

At the present time, political security, that is to say, immunity from governmental interference and the certainty of the legal enforcement of contracts, is fairly well guaranteed. What may be called moral security, or faithfulness in keeping promises, is less developed.

The present epoch, moreover, offers to the prospective investor thousands of inducements unknown to our ancestors. Stock exchanges now deal in innumerable varieties of "investments." Countless industrial and financial enterprises, stock companies, railroads, government and municipal loans, furnish unnumbered opportunities for the investment of money. They promise more or less interest, and often pay what amounts to a *premium* on the sum invested, the returns sometimes being greater than the original investment. In continental European countries additional inducement to invest money is offered by the promise of lottery prizes sometimes amounting to $100,000—inducements of an exceedingly questionable ethical nature.

The social usefulness of investment is incontestable. Without investment the most remarkable enterprises of modern times would be impossible for want of the required capital. From the standpoint of society as a whole, investment must be regarded as an employment of wealth that is *more altruistic* than even saving or spending. Saving and spending are necessarily more or less egoistic; but the investor, instead of keeping his wealth for his own immediate or future consumption, transfers it to others in order that they may consume it productively.[1] Let us suppose that he uses his savings to buy some of the stock issued by a mining or a railroad company.[2] He pays the company the money value of the stock. Does the company merely save the money? Surely not, for if this were its purpose, there would be no real need to borrow. It uses the money to dig shafts or tunnels, to construct machinery, to buy steel rails, coal and ties, to pay present employees and to hire others. The same is true of all investments.

Yet the man who invests is sometimes quite as much the object of popular animadversion as the man who hoards. People mistakenly assume that the man who keeps securities in his safe is engaged in hoarding, and that he withdraws money from circulation. As a matter of fact, his money is not in his possession, but out in the business world, stimulating business and employing laborers in all parts of the world. Perhaps his money is used to hire Chinese laborers on the trans-Siberian railway; perhaps it is used to employ Kaffirs in the mines of the Transvaal. In such cases, *i.e.* whenever capital gives employment to foreign labor and not to native workers, there is some foundation in the prejudice against investors; for then investment is a kind of absenteeism in capital. But if foreign investments are intelligently made, they will bring back to the nation, in the form of profits and dividends, more wealth than has been sent abroad.

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[1] Doubtless the capitalist does not perform this service for philanthropic reasons. He seeks profit. But his altruism, although unconscious, has the same results as if it were intentional. As John Stuart Mill correctly remarks, "We help the workers, not by what we consume, but only by what we ourselves *do not consume*."

[2] We speak advisedly of stock issued by the company. For if the stock were purchased at the bourse, it would simply be transferred, and the

capitalist whose case we are investigating would merely be substituting himself for the previous owner of the stock. Even in this case, however, the investment of capital usually means its productive employment, for the capitalist who has sold the stock is obliged to make some use of the proceeds; and it is probable that he has sold his stock simply because he has found some more profitable use for his capital.

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